The Running Head: Kenner Army Health Clinic

A PROSPECTIVE ANALYSIS TO DETERMINE THE MANAGEMENT STRATEGIES NECESSARY TO SUCCESSFULLY IMPLEMENT THE TRICARE PROGRAM AT KENNER ARMY HEALTH CLINIC

A Graduate Management Project

Submitted to the Faculty of

Baylor University

In Partial Fulfillment of the

Requirements for the Degree

of

Master of Healthcare Administration

by

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1 June 1998

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED
	August 1998	FINAL REPORT (07-97 TO 07-98)

4. TITLE AND SUBTITLE

A Prospective Analysis to Determine the Managment Strategies Necessary to Successfully Implement the TRICARE Program at Kenner Army Health Clinic

5. FUNDING NUMBERS

6. AUTHOR(S)

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7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

UVA Health Sciences Center
Charlottesville, VA 22908

8. PERFORMING ORGANIZATION REPORT NUMBER

42-98

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)

US ARMY MEDICAL DEPARTMENT CENTER AND SCHOOL
BLDG 2841 MCCS-HRA US ARMY-BAYLOR PROGRAM IN HCA
3151 SCOTT RD SUITE 1412
FORT SAM HOUST TEXAS 78234-6135

10. SPONSORING/MONITORING AGENCY REPORT NUMBER

11. SUPPLEMENTARY NOTES

12a. DISTRIBUTION/AVAILABILITY STATEMENT

Approved for Public Release: Distribution is unlimited

12b. DISTRIBUTION CODE

13. ABSTRACT *(Maximum 200 words)*

As health care costs continue to increase, payors and providers are developing a variety of innovative ways to control costs while still providing qualit care, including managed health care. In accordance with the national trend toward manage care, the DoD is implementing its own managed care program, TRICARE. One of the guiding principles of the TRICARE Program is to optimize the use of MHS resources. When Kenner downsized to a clinic, many services were discontinued prior to and without implementing similar services elsewhere. Given the impact of this downsizing, and the transition to a capitated method of financing, it is imperative for Kenner to develop an appropriate strategy to implement the TRICARE Program and remain financially viable. Specifically, Kenner needs to know the population, the services required to care for this population, th costs of these services and the revenues associated with caring for these patients. Software products such as the desk-top model, resource sharing worksheet and the EBC PLAN can be used to gather the data on the population and services and assist with the utilizat and financial analysis of services rendered. Medical management tools such as utilization review, case management and critical pathways, and prevention programs can be used to develop a more effective means of delivering health care. Kenner must make a shift in its thinking from a workload based to patient based syst

14. SUBJECT TERMS	15. NUMBER OF PAGES
Enrollment Based Capitation	72
	16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
N/A	N/A	N/A	UT

NSN 7540-01-280-5500

Standard Form 298 (Rev 2-89)
Prescribed by ANSI Std 239-18
298-102

ABSTRACT

As health costs continue to increase, payors and providers are developing a variety of innovative ways to control costs while still providing quality care, including managed health care. In accordance with the national trend toward managed care, the Department of Defense (DoD) is implementing its own managed care program, TRICARE.

One of the guiding principles of the TRICARE Program is to optimize the use of MHS resources. When Kenner was downsized to a clinic, many services were discontinued prior to and without implementing similar service agreements elsewhere. The delay in the implementation of the TRICARE Program further compounded the problem.

Given the impact of the BRAC downsizing on Kenner's operation, and the transition to a capitated method of financing health care delivery, it is imperative for Kenner to develop an appropriate strategy to implement the TRICARE Program and remain financially viable. Specifically, Kenner needs to know the population, the services required to care for this population, the costs of these services and the revenues associated with caring for these patients.

Software management tools, such as the desk-top model, resource sharing worksheet and the enrollment based capitation program linking annual network needs and enrollment resourcing (EBC PLANNER) can be used to gather the population and services data and assist with the utilization and financial analysis of services rendered. Medical management tools such as utilization review, case management and critical

pathways, and prevention programs can be used to develop a more effective means of delivering health care.

For Kenner to operate more efficiently and cost-effectively, the adaptive strategies of product development, enhancement and retrenchment should be examined. The products that should be developed are: 1) information systems to better track patients and patient care data, 2) prevention programs and 3) case programs. The operations that would benefit from enhancement are health risk appraisal data collection and programs that target life style changes. Market entry strategies such as joint ventures and internal developments should be examined if Kenner is to function more efficiently and effectively. Opportunities for partnering with the contractor in resource sharing and/or resource support ventures should be investigated in order to increase access to care in these areas.

Numerous programs could be internally developed using the organization's own resources. Opportunities should be investigated in the areas of prevention, utilization and case management programs.

Kenner must make a significant paradigm shift from a workload based to patient based system. It must look at healthcare delivery in terms of the lives it is responsible for and the services that they require. This will not be an easy transition, but it can be accomplished through a carefully designed and implemented strategic plan.

TABLE OF CONTENTS

LIST OF TABLES

INTRODUCTION

In 1994, the United States spent $1,060 billion on health care, representing roughly 14% of the Gross National Product (Gapenski, 1996). Health care costs have been skyrocketing for many reasons, including: increasing technology, cost shifting by providers to pay for care given to patients who are unable to pay, increasing age of the population, the practice of defensive medicine, and wide variations in efficiency and quality of care. As health costs continue to increase, payors and providers are developing a variety of innovative ways to control costs while still providing quality care, including managed health care.

Kongstvedt (1995) defines managed health care as a system of health care delivery that attempts to manage the cost of care, the quality of care and access to care. The common denominators include a panel of contracted providers, penalties to subscribers who use out of network providers and some type of authorization process. Managed medical care dates back over 60 years. However, it wasn't until 1973, with the passage of the HMO Act, that managed care plans were actually able to increase in numbers and expand enrollments through health care programs, financed by grants, contracts and loans. Managed care plans are being implemented nationwide. Currently, managed care plans are serving over 40% of the American public.

In accordance with the national trend toward managed care, the Department of Defense (DoD) is implementing its own managed care program, TRICARE. TRICARE is the health benefits program for all seven services. TRICARE is managed by an executive military health care staff, known as the Lead Agent, in each of 14 geographic regions in the U.S., Europe and Pacific. The program began in March 1995, with Region

11 (Washington and Oregon) and will be phased in over a 3-year period in the remaining regions. TRICARE utilizes the health care resources of the Army, Navy and Air Force and supplements their capabilities with networks of civilian providers in an effort to provide better access and high quality service while maintaining the ability to support military operations (Your military health plan, 1996). The goals of TRICARE are to improve beneficiary access to care; ensure a high quality, customer-focused, consistent health care benefit for all Military Health System (MHS) beneficiaries at no or low cost; preserve choice for all non-active duty participants; and contain overall DoD health care costs while maintaining medical readiness for all contingency operations (http://www.ha.osd.mil//tricare/mrkt/tricplan.html, 1996).

All active duty members and their families, retirees and their families and survivors who are not eligible for Medicare may participate in at least one of the three TRICARE options. Medicare eligible retirees may seek care at Military Treatment Facilities (MTFs) on a space-available basis. It is recommended that to ensure continuity of care, and not be subjected to the uncertainty of space-available care, this beneficiary group should enroll in Medicare Part B so they will always have access to care (Your military health plan, 1996). There are three options available to beneficiaries: Prime, Extra and Standard. TRICARE Prime is a health maintenance organization type option focusing on MTF health care, augmented by preferred providers organized by a regional TRICARE contractor. Active duty members are automatically enrolled in the TRICARE Prime option, while CHAMPUS-eligible beneficiaries may voluntarily enroll in this option. Assignment of a Primary Care Manager (PCM) is part of the enrollment process. Enrollment allows the system to match beneficiary demand for health services with the

appropriate level of medical support. Priority for enrollment is in the following order: active duty, active duty family member, and all other eligible beneficiaries under the age of 65 (http://www.ha.osd.mil/tricare/trimhss1.html, 1996). TRICARE Extra is a preferred provider organization that allows beneficiaries to utilize a network of preferred providers at discounted rates established by an agreement. TRICARE Standard is the DoD's current fee for service insurance program, CHAMPUS.

One of the guiding principles of the TRICARE Program is to optimize the use of MHS resources. Resource allocation and financing mechanisms have been designed to encourage improved efficiency and effectiveness. The first TRICARE capitation model introduced in 1994 and still in use, allocates Defense Health Program (DHP) funds to the three Military Departments and acts as the foundation for enrollment based capitation (EBC). The MHS resources are allocated on a capitation-based methodology that distributes operation and maintenance dollars for direct care, CHAMPUS, and military personnel resources. These funds are allocated from the central DHP that was established to improve overall management of the military health services program (http://www.ha.osd.mil/tricare/trimhss1.html, 1996).

Currently, resource allocations are based upon a two-step process that reflects each Service's individual requirements, yet is consistent with the overall DHP resource allocation framework. The Assistant Secretary of Defense (Health Affairs) allocates CHAMPUS and direct care operation and maintenance dollars and military personnel resources to the three Services using a financially based, modified capitation methodology. The Military Departments allocate resources to each of their MTFs, based on a modified capitation methodology designed by the Services, to meet their unique

requirements as approved by Health Affairs. The Military Departments identify all CHAMPUS resources for the Lead Agent's management oversight in each of the fourteen regions. The method for further allocating the CHAMPUS resources depends on the Service affiliation of the regional Lead Agent and the existence of a fixed price; at-risk managed care support contract. Calculation of the allocation of CHAMPUS resources to MTFs in regions with such contracts is done by Health Affairs and provided to the Military Departments (http://www.ha.osd.mil/tricare/trimhss1.html, 1996).

In regions that do not have a managed care support contract in place, the operation and maintenance and CHAMPUS funds are included in the initial budget allocation of the Military Departments. The Military Departments hold their Service's share of the CHAMPUS budget at the Service headquarters level. The Military Departments identify the beneficiaries' share of the CHAMPUS requirement for each region, and report the amount held for each region to the Lead Agent's parent Service.

In May 1995, Health Affairs issued a Transfer Payment Policy as the next step in the evolution toward a fully capitated system. The third and final step will be full implementation of EBC. Once that occurs, it will have a profound affect on Kenner Army Health Clinic (KAHC).

Kenner Army Community Hospital (KACH) was a 200-bed facility that was staffed for 60 beds and had an average daily census of 10. Under the Base Realignment and Closure (BRAC) Act, the Secretary of Defense recommended the realignment of Ft. Lee by reducing KACH to a clinic, eliminating all impatient services in 1995. Despite the community's concerns that the Army recommendations would decrease the staff at the facility below the level needed to support an outpatient clinic, eliminate critical

medical support to Ft Lee's mission as well as decrease access and increase costs for beneficiaries in and beyond the hospital catchment area, and shift half of the hospital's current demand for outpatient workload to outside providers, thus increasing the Army's predicted cost of the recommendation, the BRAC Commission found that the realignment of KACH, would eliminate excess acute care inpatient beds and decrease costs, without compromising the mission effectiveness of Ft Lee (Commission Findings and Recommendations, 1995). KACH ceased all inpatient and emergency services on August 1, 1996. It became Kenner Army Health Clinic (KAHC) on October 1, 1996. It was anticipated that the TRICARE Contract would start in June of 1997. In an effort to minimize the effects of the BRAC downsizing and the delayed implementation of the TRICARE Program, Kenner staff obtained approval to extend components of the TriCare Demonstration Project from the Tidewater area. The components included establishment of a TriCare Extra provider network and use of the TriCare Service Center to assume the task of appointment scheduling. The revised TRICARE Program implementation was re-scheduled for May 1, 1998.

KAHC currently has 12 health care providers that staff the facility. The facility houses three primary care clinics, pediatric clinic, optometry clinic, physical examination clinic and an orthopedic clinic. It provides ancillary services such as laboratory, radiology, pharmacy, social work, physical therapy, community mental health and alcohol and drug abuse prevention and control program (ADAPCP). It averages 14,800 outpatient visits per month or about 178,000 visits annually. All inpatient and specialty outpatient care is provided outside the facility.

Currently, the network of military providers which augment KAHC's capabilities are the MEDDAC at Fort Eustis (62 miles), Portsmouth Naval Medical Center (77 miles), Walter Reed Army Medical Center (120 miles), and McGuire Veterans' Administration Medical Center (24 miles). The local civilian hospitals are Southside Regional Medical Center (5 miles), John Randolph Medical Center (5 miles) and Chippenham Medical Center (30 miles). Given the impact of the BRAC downsizing on Kenner's operation, and the transition to a capitated method of financing health care delivery, it is imperative for Kenner to develop an appropriate strategy to implement the TRICARE Program and remain financially viable.

STATEMENT OF THE PROBLEM

To determine the management strategies necessary to successfully implement the TRICARE Program given EBC methodology and the effects of the downsizing of Kenner Army Community Hospital to Kenner Army Health Clinic.

LITERATURE REVIEW

The concept of capitation is recognized nationally as an important strategy for containing the cost of health care. Kongstvedt (1995) defines capitation as a predetermined amount of money that is received or paid out. It is based on membership rather than services rendered and is usually expressed in per member per month (PMPM) premium. The rate may vary based on such factors as age and sex of the enrolled member. Providers are paid this set amount of money every month for a member regardless of whether the member receives care or not. The civilian sector is very

familiar with capitation in the managed care environment. Capitation systems are growing in popularity because governments and insurance companies want to negotiate with bundles of services, fewer sellers, and risk-contracting care organizations. Both in terms of cost control and administrative simplicity, capitated plans are superior to dealing separately with many physicians and ancillary service providers (Eastaugh, 1992).

The primary goal of capitation is to decrease the amount of money spent on healthcare services by transferring more financial risk to physicians and healthcare facilities. For capitation to decrease overall costs and increase quality, it must be tied to a corporate agenda of partnering with stakeholders to achieve strategic goals, such as delivering more cost-effective care or improving patient outcomes or the health status of a community. Capitation encourages the building a different type of business relationship between health plans, hospitals, and physicians based on interdependence. It can represent a unifying focus and common frame of reference. When trust is developed among partners, it is possible to work together to achieve a common goal of managing treatment along a continuum of care and thereby achieving cost-effective care and better outcomes. It requires greater administrative and clinical integration than fee-for-service, thus enhancing the potential for successfully integrating the practitioners, processes, and practices of a provider network (Boland, 1997).

Capitated providers are at risk for the services they provide. An important effect of payment by capitation is to motivate providers to control costs and to provide cost-effective services. Physician groups must understand that capitated contracting entails a significant transfer of risk from the managed care organization to the contracting organizations. Under traditional fee-for-service insurance contracts, the insurance

company pays physicians, predominantly on a discounted basis, for all serviced provided. Under a capitated contract, physicians are paid prospectively for managing the health of enrolled plan members and providing all services required by those members (Barber, R.L., Jones, W.J., Johnson, J.A., 1996)

Capitation makes the total cost of health services more predictable and controlled by health funding authorities. Capitation is most effective where consumer choice generates enough competition among providers to encourage quality. Quality can be mitigated if beneficiaries have the right to re-enroll periodically with competing managed care plans. Providers must be concerned with satisfying consumers in addition to maximizing the margin between revenues and expenses (Barnam, H., Kutzin, J., and Saxenian,H., 1995).

The incentives for pure capitation are to keep the patients satisfied so they do not disenroll and healthy so they do not over utilize expensive resources. Capitation offers no incentive to provide expensive care that is not medically necessary, and offers the long-term incentive to provide preventive care. Capitated managed care systems make the provider a gatekeeper with the dual responsibility to do no harm to the patient while acting as an explicit guardian of the health plan's financial welfare. Capitated systems run the risk of under care, so the appropriate amount of care and patient outcomes must be monitored. The provider receives a fixed payment regardless of whether services are rendered so to be profitable, it is best not to render service or if service must be rendered, the lower the cost, the better. They also run the risk of over referral, in that the gatekeepers may minimize their workload by shunting patients to specialists in the health

plan (Eastaugh, 1992). This problem can be managed somewhat by rewarding low referral rates and capitating the specialists.

Capitation is the primary resource allocation methodology for the TRICARE program. The first DoD capitation model was introduced by the Acting Assistant Secretary of Defense, Health Affairs in July 1993. However, the DoD has been examining the methodology since 1975. Historically, MTFs were financed on the basis of the volume of services provided - the greater the workload, the bigger the budget. In 1975, President Carter directed the Departments of Defense, Health Education and Welfare and the Office of Manpower and Budget to conduct a two-year study entitled the "Military Health Care Study." The major recommendation from this study was that resource programming and budgeting for the continental United States (CONUS) should be done using a capitation model (Report of the Military Health Care Study, 1975). In 1993, a policy memorandum entitled Preparing the Military Health Service System (MHSS) for Capitation-based Resource Allocation (1993), was issued from the Acting Assistant Secretary of Defense Health Affairs and directed the implementation of the FY 1994 Capitation Methodology. The Economics of Sizing the Military Medical Establishment --Executive Report of the Comprehensive Study of the Military Medical Care System (1994) stated that the DoD could cost-effectively size the peacetime requirements only if it managed demand through managed care and capitation budgeting. The need to control costs utilizing capitation-financing methodology to support MTF budgets was reiterated by the "Defense Planning Guidance FY1996-2001" (1994). In 1995, a work group under the direction of Health Affairs and the Office of Program Analysis and Evaluation studied the structure of medical programming in the DoD and

refined the then-current capitation model for analyzing DHP resource requirements. In 1995, the "Defense Planning Guidance FY 1997-2001", stated that Health Affairs would control medical costs, utilizing capitation financing methodology to support MTF program development, budget formulation and execution, and determine the most appropriate methods for directing patients to care, such as gatekeeping and utilization management (Defense Planning Guidance FY 1997-2001, 1995). This language has been incorporated into subsequent planning guidance (Defense Planning Guidance FY 1998-2003, 1996).

The motivation to develop EBC stems from the necessity to enable MTF Commanders to have full accountability for all resources used by their TRICARE Prime enrolled population. MTF Commanders will be empowered to provide high quality, appropriate, cost-effective care to their beneficiaries. This will promote health and decrease the need for intervention and infrastructure (Enrollment Based Capitation, 1997).

The MHS is currently using the FY 1994 capitation model that is referred to as a "modified MTF-based capitation model" because the resource allocation formula's numerator is all resources attributable to a Military Department of MTF and its denominator is the estimated user population. The numerator consists of the historical costs of care provided by each MTF to all eligible MHS user beneficiaries (regardless of residence) plus the government cost of all civilian care provided to eligible beneficiaries under the CHAMPUS/MCS contract TRICARE program. The denominator is the number of eligible beneficiaries reported to live within the catchment area, modified by the rate of estimated MHS usage by those beneficiaries as determined through a semi-

annual user survey. The model is composed of three categories: military medical support (non-capitated); military-unique capitated (capitated on military active duty endstrength and on medical active duty endstrength); and HMO Equivalent (capitated on estimated user population). This model is one of three components of the TRICARE program. The other two parts are the creation of 14 TRICARE Lead Agent regions and the implementation of the TRICARE MCS contracts to provide civilian health care services with in each region (FY 98 TRICARE EBC Implementation Guidance, 1997).

On May 22, 1995, the Transfer Payment Policy was issued by Health Affairs in order to provide a framework and to identify the resource impacts related to shifting referral workload patterns caused by the new incentive of the modified capitation methodology. It was based on historical data from the Retrospective Case Mix Analysis System (RCMAS) and adjusted for shifts in population and mission changes. Each Military Department will establish funded baseline quantities for referrals into an MTF and referrals from an MTF for all CONUS-based MTFs. For MTFs under managed care support contracts, once a non-availability statement (NAS) is issued, the managed care support contractor is afforded the opportunity to purchase the care from either the network or another MTF (http://www.ha.osd.mil/tricare/trimhss1.html, 1996).

The transfer payment policy was superseded by the new EBC policy issued on April 7, 1997. This represents the third step in the evolution. EBC will be implemented in phases with FY 1998 as the transition year and full implementation in FY 1999. DHP funds will be distributed in the 1st Quarter of FY 1998 using the current capitation model. The funds will be labeled using EBC scorecard categories, with space available projections used to reconcile the old allocation method (user based) with the new EBC

mechanism. So, MTFs will get approximately the same resources they would have gotten before EBC implementation, easing the conversion from a "fee for service" based system to an enrollment based system. In the 3rd Quarter of FY 1998, DHP funds may be realigned based on the data from the reconciliation reports. In FY 1999, full implementation will occur when DHP funds are distributed to the Military Departments and MTFs based on the EBC model (FY 98 TRICARE EBC Implementation Guidance, 1997).

EBC is a system for the distribution of DHP Funds. It is based primarily on the number of enrollees at each MTF and is adjusted for the consumption and provision of space available health care services. The fundamental difference between the 1994 modified capitation methodology and EBC is that EBC will provide a specific MTF allocation to the Departments whereas the 1994 model allocated funds based on estimated user population. It represents the next version of the capitation methodology that will be used by the MHS (FY 98 TRICARE EBC Implementation Guidance, 1997).

Under the regionalization concept, the direct care and military personnel resources will continue to flow through the Military Departments to the MTFs without change. The MTF commander will continue to control allocated operation and maintenance, direct care and military personnel resources. It is expected that commanders and their staffs will make manpower decisions early enough to affect military assignments and balance their overall staffing levels, making long range planning imperative. In the short term, excess military resources can be directed on a temporary basis to provide needed health care services at other MTFs in lieu of contracts or CHAMPUS. Service-specific command and control of the MTFs and legal liability for

over-obligation of operation and maintenance direct care resources will also continue without change (http://www.ha.osd.mil/tricare/trimhss1.html, 1996).

All CHAMPUS resources will be allocated by Health Affairs to the Military Departments based on the capitation methodology. Until managed care support contracts are established for all regions, the Military Departments will calculate both catchment area and non-catchment area costs for their beneficiaries in each of the regions. Each of the Lead Agents will receive information and fiscal guidance through their parent Service's chain-of-command that identifies their total CHAMPUS budget with Service-specific and catchment area-specific subtotals (http://www.ha.osd.mil/tricare/trimhss1.html, 1996).

The regional Lead Agent is responsible for managing the referral patterns for low cost, high volume outpatient and ancillary referrals. Lead Agents will assume administrative responsibility for coordinating the management of the CHAMPUS program within their specified area of responsibility. Based on the regional health services plan, developed by the Lead Agent and coordinated with each of the Services represented in the region, the Lead Agent will recommend to the Services that CHAMPUS resources be released to the appropriate MTF for direct care projects designed to reduce overall costs. The expenditure of CHAMPUS resources by the Military Departments will be monitored by catchment area and region (http://www.ha.osd.mil/tricare/trimhss1.html, 1996).

Prior to the establishment of TRICARE managed care support contracts, the regional CHAMPUS resources would be coordinated and monitored by the Lead Agent to achieve savings through the development of negotiated discounts, provider networks,

and utilization management options under established CHAMPUS regulations, DoD Instructions, and existing CHAMPUS Fiscal Intermediary and Utilization Management contracts. In regions with TRICARE managed care support contracts, the MTFs' CHAMPUS allocations will be retained by the parent Services and pooled among the Services to fund the Lead Agent's execution of the support contract. Health Affairs will calculate both catchment area and out-of-catchment area CHAMPUS allocations and provide them to the Military Departments. Under this methodology, each Service remains jointly accountable for the TRICARE managed care support contract (http://www.ha.osd.mil/tricare/trimhss1.html, 1996). To achieve the goals embodied by the TRICARE Program, particular emphasis must be placed on coordination of resources and responsibilities during the transition of CHAMPUS contractor support from the historical fee-for-service system to one in which the contractor is at-risk. To successfully implement the TRICARE Program, the Lead Agents and MTF commanders must know the full cost of the assets employed to deliver health care services (http://www.ha.osd.mil/tricare/trimhss1.html, 1996).

Under capitation methodology, the MTF commander assumes responsibility for providing health services to a defined population, with a fixed amount of resources per beneficiary. If an MTF commander generates identifiable CHAMPUS savings, then the parent Service of the MTF will retain the savings. The commander, with guidance from the designated Lead Agent, will develop cooperative management initiatives to invest funds to increase overall efficiency. In some cases, these initiatives may involve bringing CHAMPUS work in-house. The management initiatives will be reflected in the jointly developed regional health services plan and approved by the affected Military

Departments. As an incentive for the local commanders, the Lead Agent, with the approval of the MTFs' parent Service, will project in advance the estimated overall CHAMPUS net savings—the local military medical treatment facility/parent Service will then be authorized to retain 100 percent of the actual earned savings. If the CHAMPUS claims of the MTF exceed or overrun the authorized budget, then the MTF or parent Service must make up the difference. TRICARE managed care support contract bid price adjustments will be funded by the MTF or parent Service (http://www.ha.osd.mil/tricare/trimhss1.html, 1996).

However, in military medicine, the user population of an MTF does not necessarily come from a defined catchment area. Military beneficiaries are not all enrolled as in a civilian managed care scenario and are able to go to any MTF for treatment. In turn, these facilities can refer patients to other military hospitals for care. Historically, MTF funding and workload has included patients from non-catchment areas and other MTF catchment areas (referrals). Therefore, they have been given resources in their capitated allocation for that workload. Because the cost of care for these beneficiaries is included in the medical capitated allocation, MTF commanders continue to receive funds to care for these beneficiaries and should continue to provide them appropriate care (http://www.ha.osd.mil/tricare/trimhss1.html, 1996).

MTF commanders should manage referrals to tertiary care providers to insure that only appropriate cases are referred. If the MTF is below the inpatient care receivable amount, they can effectively use that amount to re-capture current CHAMPUS workload. There may be unused capacity in many MTFs which can be effectively employed to re-capture current CHAMPUS workload if the MTF budget is supplemented, through

transfer payment, for the equipment, personnel and/or supplies needed to perform the added medical services. The MTF does not pay for care given at any other MTF until the baseline is reached (http://www.ha.osd.mil/tricare/trimhss1.html, 1996).

As the MHS transitions to full capitation with the implementation of EBC, accurate, timely data gathering and processing will become more important. The Military Departments must publicize their capitation methodology for allocating all applicable operating resources to each catchment area to include: military personnel, operation and maintenance direct care, and operation and maintenance CHAMPUS. Sharing of resource management information among MTF commanders, Lead Agents, Military Departments and Health Affairs staff is required to preclude inappropriate intra- and inter-regional resource shifting (http://www.ha.osd.mil/tricare/trimhss1.html, 1996).

The MTFs, Military Departments, and the Managed Care Support (MCS) contractors must work together to ensure that key data systems: DEERS, CHCS, ADS and CEIS, are deployed properly. The Medical Expense and Reporting System (MEPRS) will become very important because many of the prices charged by MTFs for services rendered will be based on expenses and workload reporting produced by this system. Monthly EBC scorecards will compare target/budgeted enrollment, space available, and care outside the facility to actual "production," the Services will not adjust O&M allocations until after the mid-year budget execution review. Maximizing enrollment in TRICARE Prime and insuring the integrity of data are the two most important MTF Commander's responsibilities under EBC (FY 98 TRICARE EBC Implementation Guidance, 1997).

It is extremely important that MTF commanders and their staff develop the most appropriate menu of services and determine the right volume of services offered. The challenge of managing an enrolled population includes equal attention to costs experienced both inside and outside the facility. In a capitated environment, the commander of each MTF assumes responsibility for providing health services to a defined population for a fixed amount per beneficiary. The commanders will know exactly which TRICARE Prime patients they are financially responsible for and how much they will be given to care for these patients. Regardless of the amount of health services used, there is no financial incentive under a capitation methodology to inappropriately increase the number of services or to provide more costly care than is clinically appropriate. Because the MTF commander s responsible for providing all health services, there are built-in incentives to provide care in the most cost-effective setting -- the use of preventive services, the efficient delivery of each episode of care, and monitoring of the volume of services provided. Quality assurance and utilization management programs will monitor appropriate utilization of medically necessary services to ensure that budgetary controls do not erode the provision of needed care.

There are three primary features of EBC that will generate revenue. The first is a PMPM premium will be earned by the MTF for each TRICARE Prime patient enrolled. Second, additional revenues can be earned by the MTF for providing care to space-available patients if the MTF's capacity permits. Third, health care services for TRICARE Prime enrollees that are referred out by a primary care manager will be billed to the referring MTF. This earning of revenues and "purchasing of care" will be reconciled on a monthly basis at all levels of the MHS and could result in a transfer of

DHP funds within and between the Military Departments. The EBC reconciliation process will provide more timely and useful management information than the current Bid Price Adjustment (BPA) protocols within the Regional Managed Care Support (MCS) contracts (FY 98 TRICARE EBC Implementation Guidance, 1997).

EBC will have a profound impact on Kenner Army Health Clinic. It will be difficult for them to capitalize on the primary ways of generating revenue. First, the revenue associated with the PMPM premium that is earned by enrolling people in TRICARE Prime may be low. Over the past several years, beneficiaries have lost trust and confidence in Kenner's ability to provide quality care to the population (Department of the Army Inspector General Preliminary Findings, 1997). When Kenner was downsized to a clinic, many services were discontinued prior to and without implementing similar service agreements elsewhere. The delay in the implementation of the TRICARE Program further compounded the problem. The original start date was to be June 1997; however, the contract was not awarded until September 1997 with a start date of May 1, 1998. It was anticipated that the TRICARE contractor would be able to provide those services that were discontinued due to downsizing. Since beneficiaries were forced to seek care in the civilian sector, it may be difficult to bring them back to Kenner now that they are established elsewhere. Second, revenue can be earned by providing space available care if capacity permits. Due to the downsizing, Kenner has limited excess capacity to provide care to space available beneficiaries. Third, revenue can be earned if other MTFs refer patients to Kenner for care. As a primary care clinic, Kenner must refer all inpatient and specialty outpatient care to outside providers. Kenner is in the business of purchasing care, not providing it. In order for Kenner to remain

successful, revenues and expenses must be monitored closely. Sound fiscal management will be imperative through the transition period and beyond.

It will be imperative for Kenner to develop a strategic plan. Strategic management and the development of a strategy require a series of decisions to be made. These decisions must be made sequentially. The first step in developing a strategic plan is situational analysis that involves gathering data from the internal and external environment. That data is categorized into strengths, weaknesses, opportunities and threats. This information is used in strategy formulation to develop strategic alternatives and select the optimal strategy for the organization.

The five types of strategies that make up the strategy formulation process are directional, adaptive, market entry, positioning and operational. Operational strategies may be developed to implement the broader organizational strategy. Directional strategies are the broadest and set the fundamental direction of the organization by establishing mission, vision and values of the organization. These strategies establish an understanding of the organization and objectives for success. Adaptive strategies provide a method for achieving the vision of the organization. These strategies delineate how the organization will expand, contract, or stabilize operations. Some examples are related or unrelated diversification, forward vertical or backward vertical integration, market development, product development, penetration, divestiture, liquidation, harvesting, retrenchment, enhancement and status quo. Market entry strategies implement the expansion and stabilization strategies through purchase, cooperation or internal development. They provide methods for access or entry into the market. Some examples are acquisition, licensing, venture capital investment, merger, alliance, joint venture,

internal development, and internal venture. Positioning strategies are market driven and best portray the organization's competitive advantage within the market. These strategies may be market-wide or directed at a particular market segment. Some examples are cost leadership, differentiation, focus-cost leadership, and focus-differentiation. Operational strategies are the most specific and are developed for the functional areas, such as, marketing, finance, information systems, and human resources, of the organization. These strategies must accomplish the positioning, market entry, adaptive and directional strategies (Duncan, Ginter and Swayne, 1995).

The development of the financial plan should be done as part of the strategic plan for the organization. It must be congruent with the marketing plan and the organization and production plan. Traditional budgeting at MTFs was based on "previous year plus (or minus) a percentage, a method that did not assure fiscal viability or any coordination with the clinical, marketing or health management planning. It is essential to use the various software tools when developing a financial plan for the organization. These tools make it possible to integrate the various subject are plans of the MTF into an overall financial plan which is realistic and achievable (TRICARE Financial Management Education Program, 1998).

When developing the budget, it is important to use the "bottom up" approach. That means predicting the statistics first, then the expenses and then sum upwards organizationally. In creating the statistics budget, it is important to note that the marketing plan determines the expected workload from different market segments such as enrollee, referral care from other MTFs and the MCS contractor, core mission care for non-enrollees, and space available care where available. The expected workload is

summed and compared to the organizational/staffing plan's capacity to produce products. The expected workload is finalized to match the allocation of resources in the staffing plan. The EBC PLANNER is the best method for the projection of primary statistics (number of each service to be produced).

The PLANNER consists of 7 modules: customers, capacity, external care, internal care, scenario analysis, manpower requirements and reports. Each module in the planner is pre--loaded with FY 96 data.

The customer module establishes enrollee, core mission and user reliant customers. Enrollees are defined as the average enrollment over the fiscal year being planned, including Medicare enrollees at a subvention site. Medicare enrollees are the average enrollment of Medicare enrollees over the fiscal year being planned. Core Mission is the average enrollment over the fiscal year being planned, plus the full-time equivalent annual users in unenrollable core missions (trainees, Navy afloat, foreign national, active duty for training reservists, and TDY/TAD personnel). The peak core mission is the highest combined enrollment and core mission FTEs expected during the fiscal year being planned. This profile is not needed if enrollment and core mission requirements are stable, or if the peaks in core mission can be compensated by reduction in enrollments during that period. Enrollee segments are the core mission profile with a specific market segment changed up or down by 1,000 enrollees. User reliants are the customer pool to whom care may be provided though a combination of enrollment and space-available care. Usually this will b either a 40-mile market area around a bedded MTF, or a 20-mile PRISM area around a clinic. It contains average user data by age, gender and beneficiary category. The data in the module is from RAPS. It is essential to

develop the enrollee and core mission profiles so that they accurately reflect the population you anticipate being responsible for.

The capacity module contains historic MTF workload data from MEPRS. It contains such information as dispositions, bed days, visits and ancillary care. The external care module determines potential MTF referral sites and appropriate prices for MCSC purchased care. It contains referral site lists from the EBC chargemaster and CHAMPUS cost per DRG and APG.

The internal care module identifies work centers where care is provided. It contains historical counts of services provided to patients coming from outside the MTF's market area. It also itemizes counts of services that must be provided to unenrollable score mission personnel for whom the MTF does not have complete care responsibility. Data for this module are from RCMAS.

The scenario analysis module determines allocation of expected healthcare demand between local workload and purchased care, identifies opportunities for realigning patterns of purchased care and opportunities for reallocating MTF capacity. It can examine demand, cost comparisons, friction, direct care demand, purchased care demand, direct and purchased care expense and violated minimums. Data for this module is from utilization rates, utilization management adjustments, referral in workload, referral out workload, MTF capacity and MEPRS (TRICARE Financial Management Education Program, 1998).

The PLANNER can answer questions related to enrollment, HMO efficiency and MTF efficiency. The questions it can answer under planning enrollment are: How many people can the MTF enroll for it s maximum sustainable enrollment? Which segments of

the market best match the strengths of the MTF? How can the capability be assured that core mission requirements are not displaced by over enrolling? What minimum GME requirements will not be satisfied by the plan? How can the PLANNER assure enough referrals of patient out of the MTF to a specific destination (TRICARE Financial Management Education Program, 1998)?

The questions it can answer related to planning and managing HMO efficiencies are: Can the MTF deliver care to enrollees for less than the variable part of the capitation rate, for less than the entire capitation rate? Does the MTF as an HMO appear to reflect best practices"? What cost centers in the MTF have more capacity than is required for enrollees, even when all the external customer demand is satisfied? Can Medicare services be delivered to enrollees for less than the subvention capitated rate? Which patients should be referred out to which providers to obtain the most cost-effective purchased care (TRICARE Financial Management Education Program, 1998)?

The questions it can answer related to planning and managing MTF efficiencies are: What cost centers in the MTF are candidates for closure because their incremental cost is greater than the cost of outsourcing? What cost center are candidates for resource-sharing because they constrain the maximum sustainable number of enrollees? Where is the application of scare manpower, capacity and O&M dollars most valuable? Can the Medicare allocation be met with the current planned capacity and enrollment? What is the projection of the EBC Scorecard based on the planned organization and enrollment? How can monthly performance within work centers be monitored to ensure compliance with our EBC revenue budget, or better? How can patient workload be redirected to reduce costs or minimize access problems? How can expense budgets be prepared for

work center level that reflect the planning under EBC rather than just historical spending? What rules of thumb help evaluate the productivity or staffing of MTF work centers? What effect will planned utilization management economies produce on costs (TRICARE Financial Management Education Program, 1998)?

Once that is done, expenses and revenues need to be projected. It is important to take into account any amount of risk that may be associated with the overall plan. Some possible methods are payback which examines the time required to repay the nominal dollars, sensitivity analysis which examines the percent variation from base values, scenario analysis which looks at best and worst case scenario and Monte Carlo simulation which values reflect best guess of distribution and correlation. If the projected revenues do not equal or exceed projected expenses, then the organizational plan is unrealistic and one or more of the marketing, organizational staffing and production or financial plans must be altered. Under potential "EBC Second Page" the revenue budget will become just as critical as the expense budget. Gross earning will be determined by taking the gross capitated earning, subtracting care from other MTFs/MCSC and national mail order pharmacy to determine the net capitated earning. External customer care and Medicare allocation will be added in to determine overall earnings. Expenses will be calculated by adding O&M dollars, military pay resource-sharing assets, third party collection and borrowed military manpower. The DHP contribution will equal the overall earnings minus expenses. If the overall earnings are less than expenses, the MTF is a liability to the MHS (TRICARE Financial Management Education Program, 1998).

PURPOSE

The purpose of this study is to develop and propose the management strategies that will allow Kenner Army Health Clinic to provide services to its enrolled population and remain financially viable.

METHODOLOGY

Pursuant to this study, a prospective analysis will be performed to determine the management strategies necessary to successfully implement the TRICARE Program given EBC methodology and the effects of the downsizing of KACH to KAHC. For the purpose of this study, only inpatient care was addressed. Under enrollment based capitation, the organization that has enrolled the individual is responsible for providing comprehensive care to that patient. It is imperative that the organization knows the population, the services required to care for this population, the costs of these services and the revenues associated with caring for these patients.

To determine the required services, the population utilizing these services and the costs of these services, historical CHAMPUS data was obtained for FY95 and FY 96. CHAMPUS data and the EBC price lists are reported by diagnosis related group (DRG), with there being over 500 possibilities. It is important to quantify and prioritize diseases and injuries according to their incidence, prevalence and overall potential to consume resources. In an effort to prioritize the diseases, the top 50 DRGs by highest government cost and highest number of episodes of care for Fort Lee and its catchment area were used.

Three key questions must be answered about the population: what is the incidence of acute diseases or conditions, what is the prevalence of chronic illness and what is the likely volume of catastrophic cases. Then, disease categories for which the organization can attempt to make the greatest impact in terms of cost, quality and health status can be determined. These disease categories must be ranked by highest cost, highest volume, highest prevalence and highest impact (Kurtenbach and Warmoth, 1995). Upon completion of the ranking by highest cost and highest volume, it was evident that the top 10 DRGs by volume and cost accounted for almost 50% of total government costs. Therefore, in order to concentrate on the DRGs that would make the greatest impact on Kenner's financial and human resources, the study was further refined. From this information a more detailed analysis was conducted to determine the types of patients seeking care and where care was received in order to develop strategies for caring for this population. The variables of interest addressed in this study were; sex, age, beneficiary category, sponsor's rank, patient location by zip code, provider location by zip code and type of facility providing the care. A comparison of FY 95 and FY 96 was done to determine trends.

The major expenses that KAHC will incur are those associated with the purchasing of inpatient care and specialty outpatient care for its TRICARE enrollees. As stated by the Deputy Commander for Administration at Kenner, the population at Fort Lee and the care required have been stable for the last several years, making expenses fairly predictable. There have been few changes in the number of units at Fort Lee and troop strength. To determine the amount of expenses the facility could expect to incur for inpatient care, the total government costs for each DRG were summed. The inpatient

price list for Region 2 was procured from Health Affairs EBC Home Page. In order to determine the most cost effective way of providing care, a comparison between the cost of care provided in civilian facilities was compared to the cost of care delivered in the most expensive MTF in Region 2.

As KAHC transitions to a capitation based model for resource allocation, it is also important to note the major revenue-generating components of enrollment based capitation. They are the PMPM premium; the revenues earned by serving space-available patients and revenues earned by serving referral patients from outside MTFs.

To determine the amount of revenue the facility could expect when EBC is implemented, the number of anticipated TRICARE enrollees was multiplied by the PMPM premium. The actual PMPM annual premium rate for this location is $1613.09. The actual number of enrollees has not been determined, as this is a prospective study. The enrollment numbers used for calculation purposes came from several sources. The first source was Kenner's projection number, the second source was the request for proposal (RFP) for contract number, the third source was the actually number from the MOU draft between Kenner and its TRICARE Contractor, Anthem Alliance for Health, Inc. and the last source was the EBC PLANNER.

The PLANNER is a software management tool that consists of seven modules. These modules are pre-loaded with data from MEPRS, RAPS, and various other databases from FY 96. Using the default settings, cost reports were generated for FY 98. Since this is a prospective study and Fort Lee's population and service requirements have been consistent, FY 96 CHAMPUS data and the EBC PLANNER's projection for FY 98

were compared to determine trends. This information was used to compare the historical expenses with the anticipated revenues and expenses generated under EBC.

For the purposes of this study, it is assumed that the data are valid and reliable based on the previous work on these sources such as, MEPRS, RCMAS, and CHAMPUS from appropriate agencies such as Kenner, Health Affairs and OCHAMPUS, that are responsible for maintaining these data bases.

LIMITATIONS

There are some limitations associated with this study. First, the historical data that came from KACH that had inpatient capability are different from KAHC that has no inpatient capability. This may skew the comparison between past revenues and expenses and projected revenues and expenses. Secondly, since KAHC has no inpatient capability, care had to be provided in the civilian sector. To compare Kenner's costs for civilian care to cost which would have ensued had a MTF in Region 2 been used; a worst case scenario (most expensive) approach was used when selecting the MTF used for comparison. This may not be a valid assumption, but it will portray the worst scenario that in essence will be the most conservative estimate. Thirdly, since this is a prospective study the actual number of enrollees is a product of the anticipated number of enrollees. If the number used for enrollment varies greatly from the actual number enrolled, revenues may be misrepresented. This study only addresses inpatient utilization which accounts for about 23% of total dollars spent on care. In order to determine the best strategies for Kenner, both the inpatient and outpatient environments should be addressed.

ANALYSIS

The RFP projects an enrollment of 23,800 resulting in $38,391,542.00 of revenue. The MOU between Kenner and Anthem Alliance projects 34,900 enrollees, which will generate $56,296,841.00 of revenue. The EBC PLANNER projects an enrollment of 21,753 equivalent lives, which will result in $35,089,546.00 of revenue. Based on a conservative estimate, Kenner projects 22,000 enrollees that will result in anticipated revenue of $35,487,980.00.

The CHAMPUS data for FY 95 revealed the top ten DRGs in order by government cost to be psychoses (430), vaginal delivery without complications (373), no assigned DRG (0), percutaneous cardiovascular procedures (112), cesarean section without complications (371), non-DRG aftercare (v5), normal newborn (391), childhood mental disorders (431), neonate transferred <5 days old (601) and bronchitis and asthma age 0-17 (98). These DRGs account for 46.84% of the total government costs or $1,801,786.00, as shown graphically in Appendix 3. For FY 96, the DRGs were similar with the top ten DRGs in order, being psychoses (430), tracheostomy except for face, mouth, neck diagnosis (483), vaginal delivery without complications (373), extensive operating room procedure unrelated to principle diagnosis (468), no assigned DRG (0), respiratory system diagnosis with ventilator support (475), other cardiothoracic procedures (108), cesarean section without complications (371), normal newborn (391) and depressive neuroses (426). These DRGs account for $1,801,103.00 or 43.11% of the total government cost, as shown graphically in Appendix 4. Table 1 depicts information related to these DRGs for both fiscal years.

Table 1
Top 10 DRGs by highest government costs for FY 95 and FY 96

DRG #	Name	# Episodes FY95 FY96	ALOS FY95 FY96	Total govt cost FY95 FY96	Percent of total cost FY95 FY96	Govt cost per episode FY95 FY96
430*	Psychoses	153 139	13.1 9.63	$733,833 $550,661	19.08% 13.18%	$4,796.62 $3961.59
373*	Vaginal delivery w/o cc	223 232	1.58 1.68	$236,146 $219,564	6.14% 5.25%	$1,058.95 $946.40
0*	No assigned DRG	26 21	8.13 7.41	$148,778 $124,571	3.87% 2.98%	$5,722.21 $5,931.34
112	Percutaneou cardiovascul procedures	26 34	3.65 4	$143,326 $54,970	3.73% .5%	$5,512.55 $3.053.87
371*	Cesarean section w/o cc	54 41	2.81 2.83	$114,523 $77,557	2.98% 1.86%	$2,120.80 $1,891.63
V5	Non-DRG aftercare	4 3	26.75	$105,375 $59,681	2.73% 1.43%	$26,343,67 $19,893.83
391*	Normal newborn	294 263	1.65 1.59	$98,177 $75,295	2.55% 1.8%	$333.94 $286.29
431	Childhood mental disorder	5 4	37.2 12.25	$92,444 $27,149	2.4% .65%	$18,488.79 $6,787.34
601	Neonate transferred <5 days	2 0	50	$68,850	1.79%	$34,425.05
98	Bronchitis/ Asthma 0-17	41 35	3.12 2.71	$60,284 $41,626	1.57% 1%	$1,470.33 $1,189.31
483*	Trache-ostomy	0 7	35.29	$371,676	8.9%	$53,096.52
468*	Extensive OR procedure	6 4	9.33 21.5	$30,865 $127,605	.8% 5.6%	$5,144.13 $31,901.35
475*	Respiratory system Dx	6 9	10.33 9.44	$58,220 $96,512	1.51% 2.31%	$9,703.38 $10,723.55
108*	Other cardio-thoracic	0 3	6	$90,445	2.16%	$30,148.46
426*	Depressive disorders	19 11	6.89 13.82	$48,492 $67,217	2.3% 1.61%	$2,552.23 $6,110.63

* Top 10 for FY96

These data are further depicted graphically in Appendix 1.

The top ten DRGs by number of episodes for FY 95 were in order, normal newborn (391), vaginal delivery without complications (373), psychoses (430), cesarean section without complications (371), bronchitis and asthma age 0-17 (98), neonate birth weight >2499 without significant morbidity (630), no assigned DRG (0), percutaneous cardiovascular procedures (112), esophagitis/gastroenteritis/miscellaneous digestive disease (184) and vaginal delivery with complications (372). That accounts for 895 episodes of care that is 51.85% of the total number of episodes. The top ten DRGs for FY 96 were similar. They were in order, normal newborn (391), vaginal delivery without complications (371), psychoses (430), cesarean section without complications (371), bronchitis and asthma age 0-17 (98), simple pneumonia and pleurisy (91), neonate birth weight >2499 without significant morbidity (630), uterus/adnexa procedures for non-malignant without complications (359), chemotherapy (410) and no assigned DRG (0). That totals 838 episodes of care or 47.43% of the total number of episodes of care. Table 2 depicts information related to these DRGs for both fiscal years.

Table 2
Top 10 DRGs by highest number of episodes for FY 95 and FY 96

DRG #	Name	# Episodes FY95 FY96	Percent of total episodes FY95 FY96	ALOS FY95 FY96	Total govt cost FY95 FY96	Govt cost per Episode FY95 FY96
391*	Normal newborn	294 263	17.03% 14.88%	1.65 1.59	$98,177 $75,295	$333.94 $286.29
373*	Vaginal delivery w/o cc	223 232	12.96% 13.14%	1.58 1.68	$236,146 $219,564	$1,058.95 $946
430*	Psychoses	153 139	8.8% 7.87%	13.1 9.63	$733,833 $550,661	$4,796.62 $3961.59
371*	Cesarean section w/o cc	54 41	3.13% 2.32%	2.81 2.83	$114,523 $77,557	$2,120.80 $1,891.63
98*	Bronchitis/ Asthma 0-17	41 35	2.37% 1.98%	3.12 2.71	$60,284 $41,626	$1,470.33 $1,189.31
630*	Neonate, bwt>2499	34 26	1.96% 1.47%	2.18 1.81	$18,814 $15,458	$553.34 $594.56
0*	No assigned DRG	26 21	1.5% 1.19%	8.13 7.41	$148,778 $124,571	$5,722.21 $5,931.34

112	Percutaneous cardiovasculr procedures	26 34	1.5% 1%	3.65 4	$143,326 $54,970	$5,512.55 $3.053.87
184	Esophagitis/ Gastro	23 16	1.22% .9%	2.87 2.56	$20,191 $11,563	$877.85 $722.69
372	Vaginal delivery w/cc	21 11	1.22% .6%	2.33 2.27	$25,383 $10,641	$1,208.70 $967.39
91*	Simple Pneumonia	18 34	1.92% 1%	3.28 3.44	$32,481 $55,686	$1,804.51 $1,637.83
359*	Uterine/adnex	17 25	1.41% 1%	2.29 2.44	$19,487 $32,514	$1,146.31 $1,300.58
410*	Chemo	9 22	1.19% .5%	2.67 2.14	$20,056 $42,229	$2,228.42 $1,919.48

* top 10 for FY96

These data are further depicted graphically in Appendix 2.

In order to develop strategies associated with patient care delivery for this population, it is important to note some of the demographic data regarding the current users. Table 3 depicts demographic data on the users of the above mentioned DRGs.

Table 3
Demographic data for the Majority of the Population Receiving Care in FY95 and FY 96

DRG Name	Male FY95 FY96	Female FY95 FY96	Average Age FY95 FY96	Benefic Cat FY95 FY96	Sponsor Grade FY95 FY96	Patient Locat FY95 FY96	Provider Locat FY95 FY96	Facility Type FY95 FY96
Psychos	63.4% 60.4%	36.6% 39.6%	28 31	52.3% child 42.5% spouse 46.8% child, 42.4% spouse	E7 & below Both yrs	Petersbu Petersbu Ft Lee	Petersbu Petersbu Richmo	acute psych acute psych
Vag del w/o cc		100% 100%	25 24	85% spouse both years	66.4% E7 & below 73.5% E7 & below	Ft Lee Ft Lee	Petersbu Hopewe Petersbu Hopewe	general acute care both years
No assigned DRG	35% 43%	65% 57%	31 31	spouse child	50% E7 & below 81% E7 & below	Ft Lee Chester Both yrs	Richmo Franklin Both yrs	short term general both yrs
Percut cardio-vasc proc	58% 72%	42% 28%	55 53	retiree both yrs	80% E7 & below 61 % E7 & below	Chester Hopewe Petersb,	Richmo both yrs	short term general both yrs

						Highlan Spr, Richmo, Midloth		
C-sect w/o cc		100% 100%	28 27	spouse	E7 & below both yrs	Ft Lee both yrs	Petersbu Hopeweb oth yrs	short term general both yrs
Non-DRG aftercare	25% 33%	75% 67%	44 41	spouse spouse, sponsor, child	50% E6 & below 50% 04 E7 & belows	Richmo Richmo Hopewe Petersbu	Alexand Richmo	short term general both yrs
Normal newborn	46% 57%	54% 43%			85% E7 & below 73% E7 & below	Ft Lee both yrs	Petersbu both yrs	short term general both yrs
Child mental disorder	100% 100%		10 10		Majority E7 & below both yrs	Richmo both yrs	Richmo both yrs	50% acute psych, 25% short term, 25% long term
Neonate transfer <5days	50%	50%			E6 & below	Petersbu Hopewe	Hopewe	short term general
Bronchi/ Asthma	71% 71%	29% 29%	4 4		E6 & below both yrs	Ft Lee , Col Hgts Ft Lee Petursbu Ft Lee	Richmo Petersbu both yrs	short term general both yrs
Trach	71%	29%	46	retiree	E8 & below	Spring Grove	Richmo	short term general
Extensiv OR proc	67% 25%	33% 75%	45 51	retiree spouse of retire	04 All E8 & below	Richmo Petersbu	Richmo Petersbu	short term general both yrs
Respira System Dx	50% 56%	50% 44%	19 38	child child, sponsor	E7 & below All E8 & below	Petersbu Petersbu Col Hgt	Richmo Richmo, Petersbu Hopewe	short term general both yrs
Other cardio-	33%	67%	20	child	E6 &	Ft Lee	Richmo	short

thoracic					below			term general
Depress disorder	42% 64%	58% 36%	24 16	child both yrs	E7 & below both yrs	Richmo Ft Lee Hopewe Prince Geo, Col Hgt	Richmo Petersbu Petersbu	acute psych both yrs
Neonate birth wt >2499	50% 39%	50% 61%			E7 & below both yrs	Ft Lee both yrs	Richmo Petersbu Hopewe	short term general both yrs
Esopha-gitis/ Gastro	48% 56%	52% 44%	2 3	child both yrs	E7 & below both yrs	Ft Lee both yrs	Petersbu both yrs	short term general both yrs
Vag del w/cc		100% 100%	25 both yrs	spouse both yrs	E7 & below both yrs	Petersbu both yrs	Peterbu Hopewe both yrs	short term general both yrs
Simple pneumo	57% 59%	43% 41%	4 both yrs	child both yrs	E7 & below both yrs	Ft Lee Petersbu Hopewe both yrs	Peterbu Hopewe both yrs	short term general both yrs
Uterine/a dnex		100% 100%	39 45	spouse of retiree both yrs	E7 & below both yrs	Col Hgt Petersbu Ft Lee Richmob oth yrs	Petersbu Hopewe Richmo	short term general both yrs
Chemo	44% 41%	56% 59%	56 57	spouse of retiree both yrs	E8 & below both yrs	Quinton McKenn Col Hgt Chester Chester-field	Richmo Richmo Hopewe	short term general both yrs

In 1995, the majority of services provided were related to obstetrical and newborn care. Most patients were family members of active duty E7 and below. The average age was 22 with most being female. The majority of the patients lived predominantly in Petersburg, Ft. Lee, and Richmond areas and received care near their homes.

In 1996, the majority of the patients were female, seeking obstetrical/newborn care. The average age was 26 years. Most sponsor's were E7 and below living in the Ft

Lee, Hopewell, Petersburg areas and received care in those areas. For those family members of officers, most officers reside in the Richmond area and receive care in Richmond. It is important to note that the five new DRGs were predominantly associated with chronic illnesses that are seen in an older population. The downsizing of Kenner during this time most likely contributed to this change with the retirees and their family members being unable to access care at the facility. This is reflected in the increase in average age of the patient seeking care in 1996.

To further assist in the development of strategies to provide the most cost effective, high quality care, a comparison was done of the civilian facilities in the area and the most expensive MTF in Region 2. The results are depicted in Table 4.

Table 4
Cost Comparison of Government Costs per Episode in Civilian and Military Facilities for FY 95 and FY 96

DRG #	Name	Govt Cost/Episode Civilian Facility	Govt Cost/Episode Military Facility	Military Facility Location	Variance
430	Psychoses	$3,961.59	$4,935.20	NH Portsmouth	$973.61
373	Vaginal delivery w/o cc	$946.40	$1,488.89	NH Cherry Point	$542.49
0	No assigned DRG	$5,931.94	Not Done		
112	Percutaneoucardiovascu l procedures	$3,053.87	$5,051.14	NH Portsmouth	$1,997.27
371	Cesarean section w/o cc	$1,891.63	$3,140.02	NH Cherry Point	$1,248.39
V5	Non-DRG aftercare	$19,893.83	Not Done		
391	Normal newborn	$286.29	$442.08	NH Portsmouth	$155.79
431	Childhood mental disorder	$6,787.34	$2,737.50	NH Portsmouth	-$4,049.84
601	Neonate transferred <5 days	$34,425.05	$1,475.58	NH Cherry Point	- $32,949.47
98	Bronchitis/ Asthma 0-17	$1,189.31	$1,490.91	NH Cherry Point	$301.60
483	Tracheostomy	$53,096.52	$55,823.08	NH Portsmouth	$2726.56
468	Extensive OR procedure	$31,901.35	$6,652.95	NH Portsmouth	- $25,248.60
475	Respiratory system Dx	$10,723.55	$8,154.19	NH Portsmouth	-$2,569.36
108	Other cardio-thoracic	$30,148.46	Not Done		
426	Depressive disorders	$6,110.63	$1,605.51	NH Portsmouth	-$4,505.12
184	Esophagitis/ Gastro	$722.69	$707.30	NH Cherry Point	-$15.39
372	Vaginal delivery w/cc	$967.39	$1,602.93	NH Cherry Point	$635.54
91	Simple Pneumonia	$1,637.83	$1,108.18	NH Portsmouth	-$529.65

359	Uterine/adnex	$1,300.58	$2,921.35	1st Med Group, Langley AFB	$1620.77
410	Chemo	$1,919.48	$1,843.63	NH Portsmouth	-$75.85
630	Neonate bwt>2499	$594.56	$859.04	NH Cherry Point	$254.48

In addition to doing a comparison of the costs per episode of care in civilian and military facilities, it is important to do a comparison of total cost of care in civilian and military facilities. This allows for a boarder look at the issue. The results of the comparison are depicted in Table 5.

Table 5
Comparison of Total Government Costs in Civilian and Military Facilities for FY 95 and FY 96

DRG #	Name	Total Govt Cost Civilian Facility	Total Govt Cost Military Facility	Variance
430	Psychoses	$550,661	$685,993	$135,332
373	Vaginal delivery w/o cc	$219,564	$345,422	$125,858
0	No assigned DRG	$124,571	Not Done	
112	Percutaneoucardiovascul procedures	$54,970	$171,739	$116,769
371	Cesarean section w/o cc	$77,557	$128,741	$51,184
V5	Non-DRG aftercare	$59,681	Not Done	
391	Normal newborn	$75,295	$116,267	$40,972
431	Childhood mental disorder	$27,149	$10,950	-$16,199
601	Neonate transferred <5 days	$68,850	$2,251	-$66,599
98	Bronchitis/ Asthma 0-17	$41,626	$52,182	$10.556
483	Tracheostomy	$371,676	$390,762	$19,086
468	Extensive OR procedure	$127,605	$26,612	-$100,993
475	Respiratory system Dx	$96,512	$73,388	-$23,124
108	Other cardio-thoracic	$90,445	Not Done	
426	Depressive disorders	$67,217	$17,661	-$49,556
184	Esophagitis/ Gastro	$11,563	$11,317	-$246
372	Vaginal delivery w/cc	$10,641	$17,632	$6,991
91	Simple Pneumonia	$55,686	$37,678	-$18,008
359	Uterine/adnex	$32,514	$73,034	$40,520
410	Chemo	$42,229	$40,560	-$1,669
630	Neonate bwt>2499	$15,458	$22,335	$6,877
Total		$2,221,470	$2,224,530	$3,060

The data in Tables 4 and 5 reveal areas of opportunity for cost containment. Those DRGs that warrant examination are childhood mental disorders, neonate

transferred <5 days, extensive OR procedures, respiratory system diseases, depressive disorders, esophagitis/gastroenteritis, simple pneumonia and chemotherapy.

In terms of supplemental care, the top ten DRGs by highest government cost for 1996, were in order; AD maternity, transfer ER to civilian facility, ER, CT/MRI/XRAY, purchased pathology, inpatient psychiatric, inpatient orthopedics, inpatient transfer to civilian facility, EMG/EMG/Nerve and radiology. The total costs for supplemental care was $1,491,028.72 and these services accounted for 88% of the total. Active Duty maternity cost $475,136.68 (31.87%), transfer from ER to civilian was $197,268.63 (13.23%), ER care was $147,435.65 (9.89%), CT/MRI/XRAY was $132,608.36 (8.89%), purchased pathology was $94,875.84 (6.36%), inpatient psychiatric services was $69,537.75 (4.66), inpatient orthopedics was $60,059.51 (4.03%) and radiology was $34,706.22 (2.33%).

Open allotments for 1996 accounted for a total of $346,044.54 with the top two service areas being active duty payments for civilian care, $227,898.73 and active duty dental care for $95,865.70. These two areas accounted for 93% of the total for allotments.

Using the default data in the EBC Planner the scenario analysis module projected the following results for FY 1998. The total number of equivalent lives would be 21,753, which is very close to Kenner's projection of 22,000. Of those, 4,753 would be active duty, 4,799 would be active duty family members, 516 would be Guard and Reserve, 584 would be family members of Guard and Reserve, 5,031 would be retirees, 5,258 would be family members of retirees, and 812 would be survivors. For active duty, the largest concentration of male and females is the 18-34 years. For family members of active

duty, the concentration is 0-14 years for males and for females, it is 0-14years and 18-44 years. The distribution is similar for Guard and Reserve and their family members. However, for the retirees and their family members, the largest concentration is between ages 45-64.

The friction report for inpatient services reveals unmet demand in internal medicine and psychiatry. For outpatient services, the friction report reveals unmet demand in the following clinics: internal medicine, cardiology, neurology, oncology, pulmonary disease, infectious disease, otorhinolaryngology, obstetrics, psychiatry, psychology, social work, family practice, primary care, medical care NEC and physical therapy. The top three clinics with unmet demand are family practice, medical care and internal medicine. The clinics with excess capacity are: dermatology, opthamology, gynecology, pediatric, well baby, orthopedic, cast, podiatry, substance abuse rehabilitation, medical examination, optometry, community health, occupational health and emergency medical. The top three clinics with excess capacity are pediatric, emergency medical and gynecology.

The highest purchased care cost areas in order are family practice clinic, DRG not observed, medical care, cardiology clinic, neurology clinic, obstetrics clinic, internal medicine, and internal medicine clinic.

In terms of inpatient purchased care costs only, the highest were DRG not observed, internal medicine, general surgery and psychiatry. Many of these areas encompass DRGs that are similar to the top high cost DRGs for 1996, psychoses, depressive neuroses, no assigned DRG, respiratory system diagnosis with ventilator, other cardiothoracic or vascular procedures, and unrelated operating room procedures.

However, in 1996, the total cost for purchased inpatient care was $4,814,933.90, which is a 225% increase from 1995. An examination of the top 10 DRGs by cost and episode would reveal an increase of 259% from FY 96 to FY 98. Much of that is due to the transition from Kenner Army Community Hospital to Kenner Army Health Clinic and the elimination of many services, which forced patients to seek care in the civilian sector.

In terms of highest purchased care costs for outpatients, they were in order, family practice, medical care, cardiology, neurology, obstetrics and internal medicine. Details by APG are available through the scenario analysis module under detailed purchased visit. Since this study did not address outpatient utilization, this will not be covered, but it should be addressed in a future study, since outpatient care generated 73% of total government costs.

Table 6 depicts the Planner's projection for total government costs for FY 98. If those projections were true, Kenner would need to enroll 24,946 equivalent lives to generate enough revenue to cover the $40,239,799.00 in expenses. Kenner is projecting an enrollment of 22,000.

Table 6
Summary of Projected Government Costs for FY 98

BENCAT	Inpatient	Outpatient	Total
Active Duty	$1,278,509	$4,646,073	$5,924,582
FMAD<65	$2,292,896	$7,095,776	$9,388,672
Others <65	$5,406,562	$14,745,661	$20,152,223
65+	$1,875,529	$2,898,794	$4,774,322
1998 Total Cost	$10,853,496	$29,386,304	$40,239,799

The facility constraints report identified problems in internal medicine clinic, allergy clinic, dermatology clinic, general surgery clinic, ophthalmology clinic, otorhinolaryngology clinic, gynecology clinic, pediatric clinic, well baby clinic, orthopedic clinic, cast clinic, podiatry clinic, mental health clinic, social work clinic,

substance abuse rehabilitation clinic, primary care clinic, medical exam clinic, optometry clinic, community health clinic, occupational health clinic, emergency medical clinic, and physical therapy clinic.

DISCUSSION

According to the TRICARE Financial Management Education Program (1998), there are a number of goals the MHS must accomplish. They include readiness and training individuals, developing the best-integrated delivery system, improving the community's health status, efficiency and prioritizing resources, and integrating technology. The strategies associated with readiness are keeping the service member healthy, fit and well-trained through the use of appropriate research and technology such as telemedicine. For an integrated delivery system, the strategies are educating on TRICARE, establishing and promoting prevention and wellness programs, assuring the highest quality of care is being provided, and utilizing outcomes measures to determine effectiveness and efficiency. In terms of increasing the health of the community, some of the strategies are using population based information for guiding decisions, partnering with others to provide care, promoting prevention and wellness programs and collecting and analyzing population data. EBC can contribute to these strategies because capitated earnings encourage keeping people well. In terms of prioritizing resource use and maximizing efficiency, the strategies are to partner with others as appropriate, resource by analytical models, determine best practice models and optimize the organizational structure to meet the needs of the population served. In terms of integrating technology,

the strategies are identifying all applicable technology, acquiring and maintaining the technology and training to use the technology.

For Kenner to transition to a capitated environment, it is important to look at three areas, general organization, software management tools and medical management, where specific opportunities can be recognized. General organization will be further subdivided into: activity based costing, determination of services to provide and population to enroll, knowledge of the population served and services required, contract negotiations, partnering with the contractor, information systems, communication, utilization, risk taking, and customer service. Software management tools addresses the desk-top model, resource sharing worksheet and the EBC PLANNER. Medical management addresses utilization management that includes utilization review, case management and critical pathways, and prevention programs.

One of the primary elements of managed care is assisting people to know when, where and how to receive health care services in efficient and cost-effective ways. To assure that each patient's encounter maximizes treatment effectiveness and minimizes treatment costs, it is important to coordinate care planning, perform outcome assessments and insure efficient resource allocation. Costing has been used for measuring productivity and assessing the effectiveness of nursing interventions. Activity based costing (ABC) is one method. The purpose of ABC systems is to achieve more accurate estimates of costs (resources) consumed in treatment delivery. ABC assumes that an organization incurs costs to acquire the resources necessary to deliver its services. ABC costing requires the categorization of total indirect costs into individual cost pools that represent available resources, and the identification of the activities provided with those

resources. This is a very time intensive, tedious process for most organizations. However, making health care delivery decisions using an appropriate costing system, can result in more costly delivery methods being encouraged or even worse, more cost-effective delivery systems being wrongfully reduced or discontinued. Should the later occur, patients may seek care elsewhere and thereby threaten the financial viability of the organization (West, Hicks, Balas and West, 1996).

In order to prevent the above from happening, it is essential to determine the services that the organization can provide and market to the population that will best be served by these services. It is imperative not to market and enroll people who will be unable to access care due to limitation in services provided within the organization. Should that happen, a barrier to care will be created which will prolong access to care from the network providers. Also, enrolling non-users may result in users seeking care through CHAMPUS because of decreased access, thus increasing costs. It would be optimal to enroll high users in Prime, provided the services were available.

The organization must determine whom to enroll before it can determine how many it should enroll. In order to be successful, the organization can not sacrifice access and quality for numbers. If the customer's expectations are not met, he/she will take their business elsewhere and it will be very difficult to get them back into the system. That is why future strategic planning efforts must focus on key epidemiological indicators that can actually help predict the chief health care needs of a covered population. Health care organizations will succeed on the merits of their predictions; their ability to translate those predictions into wise investments in physical, technological, and human resources and their skill in managing those resources (Kurtenbach and Warmoth, 1995).

Kurtenbach and Warmoth (1995) further state that health care organizations must fully understand the populations they serve. Five key data elements must be used to describe the population. The first is age/sex/rate. Specific trends such as female population of childbearing age and change in race that may drive certain health care needs must be considered. The second is socioeconomic. Specific socioeconomic forces such as the impact of changing income levels on health care access, the current and projected number of Medicaid eligibles and uninsured, primary occupation in the community and their impact on health care benefits and types of injuries sustained at work, and marital status should be considered. The higher the socioeconomic standard, the more educated and capable the population is in caring for itself. The third is epidemiology. Specific indicators such as how your service area differs from the national averages in prevalent disease categories, estimates of the number of individuals who will develop certain disease over the next five years and the number of individuals who will encounter serious injury at the workplace or in automobiles should be considered. The fourth is lifestyle and environment. The population's willingness to seek care and to actively participate in their health maintenance, as well as other lifestyle risk factors should be considered along with population density. The fifth is employer demographics. The percentage of small, midsize and large employers should be considered to determine variation in benefit purchase decisions the geographic dispersions or concentration of employees as related to their place of employment, and the projected growth or decline in certain industry segment (Kurtenbach and Warmoth, 1995). As noted from the demographics of the population which Kenner serves, most of the patients are from the low to mid socioeconomic range (E7 and below). The average annual income is less than

$25,000.00. Many of the people qualify for government assistance programs. Their education level is predominantly high school with some associate degrees. Many of the services sought are in the maternal/child category. This population tends to seek primary care in emergency departments instead of physician offices. That is well documented in supplemental care costs, as emergency room costs were one of the highest.

Hospitals and systems can best accommodate risk by examining their ability to provide the services that will meet predicted health care demands. If the organization can sustain given services with an adequate volume of patients, based on documented need, the services should be maintained internally. If the services will require increased volumes to ensure quality and decreased costs, it may be better to outsource them to another provider at a reasonable price (Kurtenbach and Warmoth, 1995).

In a fee for service environment, the provider is free to set a menu of rates based on his needs, to which the patient/payer conforms, thereby increasing provider revenue. A capitated reimbursement system involve negotiations between the provider and payer to establish rates based on the needs of the patient/payer to which the provider conforms, lowering revenue (King, 1996). For Kenner, the TRICARE contractor will negotiate the rates, with limited input from the organization. Kenner must believe that the contractor will negotiate in good faith on their behalf. Kenner must be candid with the contractor regarding volumes and types of services required. The more accurate data that can be provided, the better Kenner and its needs will be represented. Developing a partnership with trust and team work as the cornerstones will be essential if Kenner and Anthem are to work together for the common goal of providing quality care in a cost effective manner.

In order to survive in a capitated environment, it is essential to use resources in the most efficient, cost-effective way. In some areas, partnerships with the contractor must be created. EBC and the Managed Care Support (MCS) contracts share a common goal: improve the quality and efficiency of health care delivery in the MHS. The incentives built into EBC are designed to improve contract performance as well as the performance of the direct health care system in that as MTF Commanders strive to provide their enrollees with high quality, cost effective care they will be prompted to work with MCS contractor to reduce CHAMPUS costs and improve quality. It is difficult for MTFs to achieve the "right mix" of resources on their own at all times. Therefore, most MTFs have some under-utilized capacity. That may be in the form of clinic space, unstaffed beds, idle operating room time or under-utilized personnel skills. In order to be successful in a capitated market, it is important to optimize capacity and decrease fixed costs through improved space utilization (TRICARE Financial Management Education Program, 1998).

In most scenarios a reduction in contractor cost is beneficial to all parties: the MTF, the MCS contractor and DHP. The government shares in all gains and shares in losses after the contractor loses all bid profit and an additional one percent of the adjusted health care price. The lower the contractor's costs, the more likely the profit sharing. If the actual costs of health care delivery for the given population are less than the adjusted bid health care costs, there will be gainsharing. The gainsharing is dispersed in such a way that if the actual cost is 80% or greater, but less than 100% of the actual bid health care cost, the government would receive 80% of those savings. If the actual costs were less than 80% of the bid, the government would receive 90% of the savings. However, if

the actual cost of care is greater than the adjusted bid, the government will share in the loss. If the loss is greater than 100%, but less than 101%, then the government looses nothing. However, if the loss is greater than the equity limit, then the government realizes 80% of the loss and if the loss is greater than the equity limit, the government realizes 100% of the loss (TRICARE Financial Management Education Program, 1998).

Some possible health care delivery partnership opportunities include internal and external resource sharing, resource support and local contract. Internal resource sharing is a result of an MCS provider rendering services within an MTF. External resource sharing is a result of an MTF provider rendering services within a MCS contract network hospital. Resource support occurs when the MCS contractor provides personnel, medical equipment and medical supplies with MTF funds. The contractor pays facility costs. Local contract is the same as resource sharing except it uses local government contracting. The goals of resource sharing are to use the MCS contractor to obtain the "missing pieces" of the delivery system, enable the MTFs to optimize "available" resources so that CHAMPUS care can be recaptured at a lower cost to the government, and to promote an aggressive program with "win-win" incentives because shared savings are better than no savings or shared losses. To make informed decisions regarding these options or combinations of options, direct care costs, third party collections, supplemental care, actual payment to the MCS contractor and beneficiary co-pay must be examined (TRICARE Financial Management Education Program, 1998).

Information systems require substantial investment. Organizations need to make an annual investment of at least 7% of revenue to keep pace with the industry. That percentage does not reflect the investment that the organization should make in a CIO.

The CIO must be capable of coordinating the development of an effective information system. The system should be capable of analyzing and understanding the market, supporting new services, controlling utilization and costs supporting quality improvement programs and assisting providers with developing treatment plans (King, 1996). The staff at Kenner needs an information system that will enable them to do a better job tracking supplemental care and CHAMPUS claims. Present reports seem to lack depth and information. There also appears to be a need for greater discipline with respect to DRG coding. The fact that no assigned DRG and non-DRG aftercare appeared as two of the most costly DRGs for FY95 and 96 is troubling. Without accurate coding, there is no easily discernable way to determine what services were provided.

Communication in the form of data driven knowledge, action oriented ideas, empowerment of employees and a clear statement of the organization's vision in both words and behaviors is essential. The organization that communicates sporadically compromises cooperation and becomes nothing more than independent activities and confused, noncommitted employees (King, 1996). Kenner, as with many organizations will need to disseminate information from the top down in a more efficient, effective way. It is imperative that providers realize the importance of their role in achieving the goals of the organization and the TRICARE program.

Historically, health care managers have relied on financial management strategies to address their organization's viability. In a capitated environment, expenses will be based on human resource strategies, such as employee empowerment. Financial management strategies will be necessary to guide the organization, but it will be the human resource strategies that control the level of success and organization achieves.

The organization that is capable of harnessing the creativity, dedication and loyalty of the employees will be able to lower operational expenses (King, 1996).

The management team will need to be proactive in terms of being willing to change and take risks. The ability to be innovative and "think outside the box" will be essential for success. The management team will view all employees as equal partners, establish a business plan that emphasizes collaboration with competitors and other providers to meet community needs and demonstrate a willingness to make timely decisions. The team will have determined a market niche, but will also promote organizational flexibility (King, 1996).

Fee for service or revenue driven organizational cultures focus on generating revenue through offering more services and programs with minimal regard for controlling unit price and over/ under utilization of services. However, in a capitated or quality driven organizational culture focuses on the processes that affect the overall ability of organization to efficiently achieve ultimate patient outcomes (King, 1996). Quality and efficiencies do affect profit.

Maintaining an organizational focus rather than a member focus is a serious mistake for organizations that provide care to defined populations under capitation. If providers and health plans are to be financially successful, strategic goals and decisions must be customer-oriented and market-driven. Payment structures must be designed to clearly influence provider behavior and health plan performance to met specific customer needs. Changing from an organizational focus to a customer focus requires a great deal of effort to shift the culture. Customer service issues have strong impact on providers' and health plans' bottom lines (Boland, 1997). One of the most important goals for the

organization should be customer satisfaction. The largest complaint voiced by beneficiaries is the difficulty encountered when trying to make an appointment. PCMs should be encouraged to do as much for the patient before making a referral to a specialist. If the patient must be referred out, it is imperative that he not be burdened financially or in terms of time away from work, getting to and from the appointment. The transfer of care should be convenient, appear seamless and, yet be cost effective. The lead agents can be instrumental in developing an external network across the region. Kenner will have to pay particular attention to the services provided within the facility and purchased in the community.

Several software programs have been developed to assist commanders in making the most informed decisions on providing cost-effective services to an enrolled population. They include the desk-top model, resource sharing worksheet and the EBC PLANNER. Bid price adjustments are performed annually, however informal bid price adjustments are being performed on a quarterly basis. It is estimated prospectively and retrospectively rather than retrospectively only as with the annual BPA. To assist the MTFs and lead agents with the process, the desk-top model was developed and approved by Health Affairs and the Services. The desk-top model uses quarterly data updates that are provided by HA to forecast the cost of the MCS contract in a catchment area or region. It conducts sensitivity tests or other "what if" business analyses by changing input data or other key pricing factors. It can support make-buy and right-sizing decisions. It allows the MTF commanders more information on contract costs and potential impact of decisions. The MTFs can identify any data problems and resolve

them prior to the formal BPA. Likewise, the lead agents have more timely notice of trends for the region as a whole.

There are some limitations of the desk-top model. The model is an internal DoD tool and is not formally referenced in the MCS contract and it does not reflect direct care costs. The proprietary information contained in the model must be protected from the contractor's best and final offer (BAFO). The user must be comfortable with Excel.

Despite the limitation of the desk top model, it could be a valuable tool for Kenner in the future. The results from the various types of scenarios will be extremely useful in decision making. The forecasting capability can be used to determine appropriate course corrections. The performance analysis results will allow the MTFs to compare the option period projections to actual performance, use the information to assess impact if not course changes are made and help identify performance improvement opportunities. Since all inpatient and specialty outpatient care will be going to the contractor, it will be important to concurrently monitor what is going on so adjustments can be made before significant over-utilization occurs.

A resource sharing worksheet is available for each region. The worksheet helps answer two questions: is the proposed agreement projected to be cost-effective for the MHS; and is the proposed contractor workload credit appropriate. The variables that require input are proposed contractor expenses, MTF units enabled by agreement, proposed contractor workload credit, volume trade-off factors, CHAMPUS cost per unit to be avoided and MTF marginal expenditures. It is structured to account for each type of possible savings. There are worksheets for internal versus external resource sharing. It allows for a comparison between resource sharing and resource support. The

worksheet should be done prospectively. In order to do this, some inputs will be actual data while others may be assumptions. Because there will be some degree of uncertainty, the MTF commander and the contractor must agree on all data and assumptions used in the worksheet. Kenner should obtain a copy of the worksheet and use it to examine possible opportunities for sharing agreements. Agreements should be entered into if the government's share of the projected CHAMPUS savings exceeds MHSS costs and if the MHSS costs for the agreement reflect MTF marginal expenditures plus contractor expenditures. If the results do not meet the requirements for approval, the proposed agreement may be improved through negotiation, replaced with an alternative, rejected or approved nonetheless by the lead agent because of compelling circumstances.

The EBC Planner is a management tool that can be used to assist in the transition to a capitated system. To utilize the PLANNER, scenarios (a set of profiles) that describe the world under a specific plan are constructed. A multidisciplinary team must be assembled to construct the profiles. At a minimum, the team should be a physician, marketer, administrative officer and a utilization manager, all of which are well rounded and very familiar with the organization.

The PLANNER can assist the organization with making decisions related to allocation of scarce resources, closure/new services, protection of core mission capacity and funding priorities. It can examine excess capacity cost centers for reallocation of resources to unmet demand centers, by looking reports generated from scenario analysis module, especially using Core Mission customer profiles, inpatient and outpatient frictions. It can examine each work center to determine if the size of savings for flagged products outweighs other products of the work center, as well as non-financial reasons to

maintain the work center. The reports used for this analysis are from scenario analysis; inpatient and outpatient cost comparisons. It has the ability to look at practice and referral patterns. This information can be used to assure that population care streams match desires and also reflect UM changes in flows and it also assures that no excess work is allowed for limited or non-existent work center. The key reports used for this are from the internal care module under inpatient detailed to aggregate report; outpatient detailed to aggregate report and scenario analysis under facility constraints. Referral patterns can also be examined to help manage the direction of enrollees to external providers to meet the organization's goals on access, quality and cost effectiveness. The reports used for this are found in the scenario analysis module under work center referral out dispositions, ambulatory referral patterns report and inpatient referral patterns report. In order to assist marketing with segment targeting, friction reports to identify capacity shortfalls and surpluses, while cost reports identify noncompetitive areas can be used. Ideal market segment disproportionately uses work centers of surplus capacity in areas where the MTF has a competitive advantage to alternatives. Key reports are generated from the scenario analysis module using inpatient frictions and outpatient friction reports, and the inpatient and outpatient cost comparison reports. To determine the appropriate number to enroll, the scenario analysis module should be used. Adjusting the number of enrollees until the frictions become unsolvable or the purchased care unaffordable, is one way to determine this number. The scenario analysis module should be used, paying particular attention to the inpatient and outpatient friction reports, total direct care cost report and work center purchased care dispositions. To determine the financial feasibility of a plan, funding allocation is compared against the estimate of expenses. The scenario

analysis module's direct care costs and work center net disposition demand reports will be needed (TRICARE Financial Management Education Program, 1998).

In a fee for service environment, services are viewed as revenue. The provider has limited restrictions on under-utilizing expensive equipment and procedures. The provider can charge whatever is necessary to compensate for under-utilization, resulting in excessive unit cost to the patient/payer. The provider has minimal restrictions on overutilizing equipment and services and passing the charges on to the patient/payer. However, in a capitated system, services are not viewed as revenue, but rather as costs. This is a result of limited control over the amount of revenue the patient/payer is willing to pay the provider for services. Controlling the amount of utilization will result in more profit. The goal is to achieve balanced utilization while adhering to the limits of fixed revenues (King, 1996).

Utilization management is essential for survival in a capitated market. It ensures appropriate, cost effective care, improves efficiency and quality, provides a uniform system of care for all, decreases growth in costs, enhances competitive stance, and establishes performance measures. The goals of utilization management are to reduce unnecessary utilization while retaining necessary utilization, reduce the risk of harm to patients and to integrate with quality, performance improvement programs. Some of the key ways to manage utilization are demand management, case management, critical pathways, disease management, ancillary/emergency room services, changing provider behavior, mental health and substance abuse services, pharmacy services, quality management and use of data and reports. Demand management can be accomplish with the use of nurse advice lines, self-care programs, shared decision-making programs,

medical information systems, preventive services and health risk appraisals (smoking, seat belts, mammograms, PAP smears, cholesterol screening).

If demand management is to be effective, user behavior needs to change. Incentives related to health care services need to be addressed when service members enter the military. Blair (1994) said it best, " if the local supermarket is offering groceries free, no questions asked, of course the supermarket is going to run out of goods eventually. That's the way it is. We've given the public the impression that what they're getting is free and available ton demand always. It's not so! It certainly isn't free, it comes out of their taxes and it shouldn't always be available on demand when it's not necessary".

Institutional UM should consist of prospective, concurrent and retrospective reviews. A prospective review entails reviewing care prior to its occurrence and getting pre-authorization. InterQual standards are being used for medical/surgical diagnosis, HMSI is being used for mental health and M&R is being used for outpatient services. Concurrent review evaluates care in progress. This type of review is useful for monitoring quality and appropriateness of care and screening for case management. Retrospective review evaluates care after is has been provided. It address the quality and appropriateness of care, however, it is done after the fact so is less beneficial in terms of making decisions related to necessity of care.

Managing the health of populations requires providers and health plans to shift from episodic care to risk-driven care that emphasizes preventive medicine and early intervention and matches specific medical and social services to target groups. Such population-based care takes into consideration the underlying economic, psychological,

and social factors that affect the incidence and prevalence of disease and injury and incorporates all necessary services, practitioners, and treatment settings needed to provide care to health plan members (Boland, 1997). Case management provides an individual focus to the coordination of care. It is a collaborative process that assesses, plans, implements, coordinates, monitors and evaluates the options and services required to meet an individual's health care needs. It is best used for high cost, high utilization services. Case managers can be instrumental in clarifying a population's needs and highlighting a hospital's internal need for critical pathways and practice guidelines designed to coordinate the most cost-effective patient treatment (Kurtenbach and Warmoth, 1995). They can also be an integral part of the multidisciplinary team that is responsible for the development of a critical pathway. A critical pathway is a strategic map of necessary health care services, when they are to be provided, and the expected outcomes.

Practice guidelines are used in the outpatient setting and assists the practitioner and patient in deciding the appropriate health care for specific clinical circumstances. Practice guidelines are developed by a task force and are scientifically based. They typically reflect innovations demonstrated to improve outcomes.

Disease management is a combination of the philosophies of case management; critical pathways and quality improvement aimed at optimal management of a patient with a specific single disease. Determining illnesses that warrant special attention can steer planners toward initiatives that are apt to make the most positive impact on community health and on the health care system in total. It is very useful in caring for patients with asthma, congestive heart failure, diabetes, AIDS and cancer (TRICARE

Financial Management Education Program, 1998). For Kenner, those areas include respiratory diseases such as asthma, bronchitis and pneumonia and cardiovascular disease.

However, to implement effective utilization management, new information systems, tracking mechanisms and medical management procedures must be developed and implemented. At least 80% of budgets of managed care organizations is spent on medical services that include hospital care, physicians services, laboratory and other tests and procedures costs, and pharmaceutical costs. To realize efficiencies, physician decisions related to the use of these resources will need to be influenced (Caper, 1995). Changing provider behavior requires a stepwise approach of providing information, education, discipline and sanctions as needed and rewards as earned. Provider profiling can be a very useful tool. It is outcomes driven, cost-effective, provides education and feedback to the physician, and should take into consideration such things as patient satisfaction and administrative responsiveness. The important thing to note is this useful information but it should not be used punitively. For military providers, some of the incentives used are close-in parking spaces, 3-4 day passes, and CME opportunities.

In terms of utilization management, it is essential that Kenner begin goal setting. UM must be supported from the commander down to the individual health care worker providing care. All levels of staff should be trained and educated on the principles of UM. Information systems need to be updated in order to collect appropriate data in a timely way. Case/disease management strategies need to be implemented.

With capitation being new to Kenner's population, the organization has an opportunity to capitalize on the PMPM premium by providing more cost-efficient

management of the capitated population under its care. Often, care provided in "unmanaged" populations includes inappropriate use of hospital emergency rooms, excessive self-referrals to specialists, and inadequate attention to preventive care, all of which contribute to higher health care costs. The opportunities lie in ensuring that primary care is delivered in the primary care setting, that referrals to specialists are made only when necessary, and that appropriate preventive care is provided. Preventive care can include such simple care as medication for chronic illness. It can take the form of attempting to reform poor health habits of the covered population, habits such as inadequate diet, alcohol abuse, and smoking, that have adverse effects on h health and ultimately increase the cost of health care (Barber et al., 1996).

Prevention programs have demonstrated cost savings in health care delivery. Lave, Ives, Traven and Kuller (1995) found that if health promotions services when offered those that were covered by insurance would likely be used by beneficiaries. Beneficiaries were more likely to use those services that required little involvement on their part, such as health care screening and immunizations. Those programs that require more involvement and behavior modifications such as smoking cessation and nutrition were less likely to attract people. This means that people who are most at risk for having high-risk behaviors or symptoms were less likely to use the services. It was also found that people with more education were more likely to participate in health programs and more likely to investigate new programs and services. Rural beneficiaries are more likely to use preventive services if encouraged to do so by their doctors rather than by hospital based programs.

There are numerous opportunities for prevention programs in the areas of hypertension control, cholesterol control, reductions in tobacco use, weight control and cancer screening. Studies indicate that in 1995, 23.1% or VA residents and about 22% of US residents reported having high blood pressure. In terms of elevated cholesterol levels, 21.3% of VA residents and 19.4%of US residents reported elevations in 1995. However, 26.2% of VA residents and 31.1% of US residents have never had their cholesterol checked. In 1995, 22.7% reported smoking cigarettes with 48.3% smoking more than 1 pack a day. Tobacco use is the most important single preventable cause of death in the US, accounting for an estimated 500,000 lost lives annually. In VA, 29.2% of residents are overweight, for the US, it is 28.6%. According to the VA Department of Health, physically fit adults have a 33% lower work absentee rate and cost approximately $130 less per year in medical insurance claims. For females, 12.4%of VA residents and 164% of US residents have not had a Pap Smear as recommended (Community Health Survey, 1998). In the US, 80% of women aged 50-74 enrolled in the Kaiser Permanente Plan of Northern California receive mammography screening, compared to 25% of women in this age group in the population as a whole, and pediatric immunization rates are over 90% for Kaiser, compared with the national average of 37% (Barnum et al., 1995).

This is particularly applicable to Kenner because historical utilization data indicates that many of the most costly DRGs are related to respiratory and cardiac diseases. In order for prevention programs to be successful at Kenner, the programs must be taken to the service members in the field. There should be an active partnership between the health care providers and the units. The unit commanders must be

supportive and encourage the service members to seriously address the need for life style changes.

CONCLUSION AND RECOMENDATIONS

The purpose of this study was to develop management strategies necessary to insure Kenner's ability to provide services to its enrolled population and remain financially viable. In order to identify opportunities to improve organization-wide efficiencies, Kenner should develop management personnel systems and information infrastructure to identify how the enrolled population consumes services, who is providing it, and at what utilization rates and prices. It should develop techniques to decrease costs by measuring and improving the health status of enrollees to decrease the demand for medical services, eliminating unnecessary services, improving efficiency throughout the organization and ultimately, and using outcomes measures to determine the health status of its enrollees (Caper, 1995).

For Kenner to operate more efficiently and cost-effectively, the adaptive strategies of product development, enhancement and retrenchment should be examined. The products that should be developed are information systems to better track patients and patient care data and prevention and case programs that concentrate on the needs of the respiratory and cardiovascular patients. DRGs associated with these two populations contributed to a significant number of episodes of care and government cost. The prevention programs should include cholesterol control, blood pressure control, stress reduction, nutrition and substance abuse. Many asthma patients would benefit from case management and self-care education. Through case managers, clinical pathways should

be developed to help standardize the care of these patients, thus making care more efficient and cost effective.

The operations that would benefit from enhancement are health risk appraisal data collection and programs that target life style changes. The health risk appraisal questionnaire should be taken to the units on an annually basis to assist with monitoring the health status of the military population. The unit commander and the MTF should share responsibility for completion of the questionnaire. It should also be distributed to family members on an annual basis for similar monitoring. For those patients who require some type of lifestyle change to decrease the risk of disease, a case manager should be assigned. Education, encouragement and follow-up are important elements for behavior changes to occur.

Based on preliminary data from the PLANNER, there is excess capacity in dermatology, optometry, gynecology, pediatrics/well baby, casting, podiatry, orthopedics, substance abuse rehabilitation, medical examination, occupational health, and community health. These areas should be investigated for possible retrenchment.

Market entry strategies such as joint ventures and internal developments should be examined if Kenner is to function more efficiently and effectively. Joint ventures combine the resources of two or more organizations to accomplish a designated task. Based on the PLANNER's friction report, there is unmet demand in internal medicine, cardiology, oncology, pulmonology, infectious disease, otolaryngology, obstetrics, psychiatry, social work, primary care and family practice. Opportunities for partnering with the contractor in resource sharing and/or resource support ventures should be investigated in order to increase access to care in these areas.

Numerous programs could be internally developed using the organization's own resources. Opportunities should be investigated in the areas of prevention, utilization and case management programs. Expanding lab and radiology services should also be examined in an effort to recapture government monies spent on these services. The historical supplemental care data revealed significant government costs for CT/MRI and pathology services. Establishing a patient transportation system should also be examined. According to the supplemental care data, the government incurred a substantial amount of costs for transporting patients to civilian facilities.

For Kenner to increase the enrollment of patients into TRICARE Prime, utilizing the positioning strategy of cost leader would be best with some caution. Cost leader is a low cost/price strategy directed toward an entire market. The majority of patients who receive care through CHAMPUS were enlisted solders in the ranks of E7 and below and their family members. This population is very price sensitive when choosing health care options. The lower the cost, the more likely this population is to choose this option. However, the organization must be cautioned in this approach. If this is the predominant population that enrolls with Kenner, there may be a tendency for adverse selection. This population tends to be more costly because they don't seek care early, don't participate in prevention programs and receive much of their primary care in emergency rooms.

In summary, Kenner must make a significant paradigm shift from a workload based to patient based system. It must look at healthcare delivery in terms of the lives it is responsible for and the services that they require. This will not be an easy transition, but it can be accomplished through a carefully designed and implemented strategic plan.

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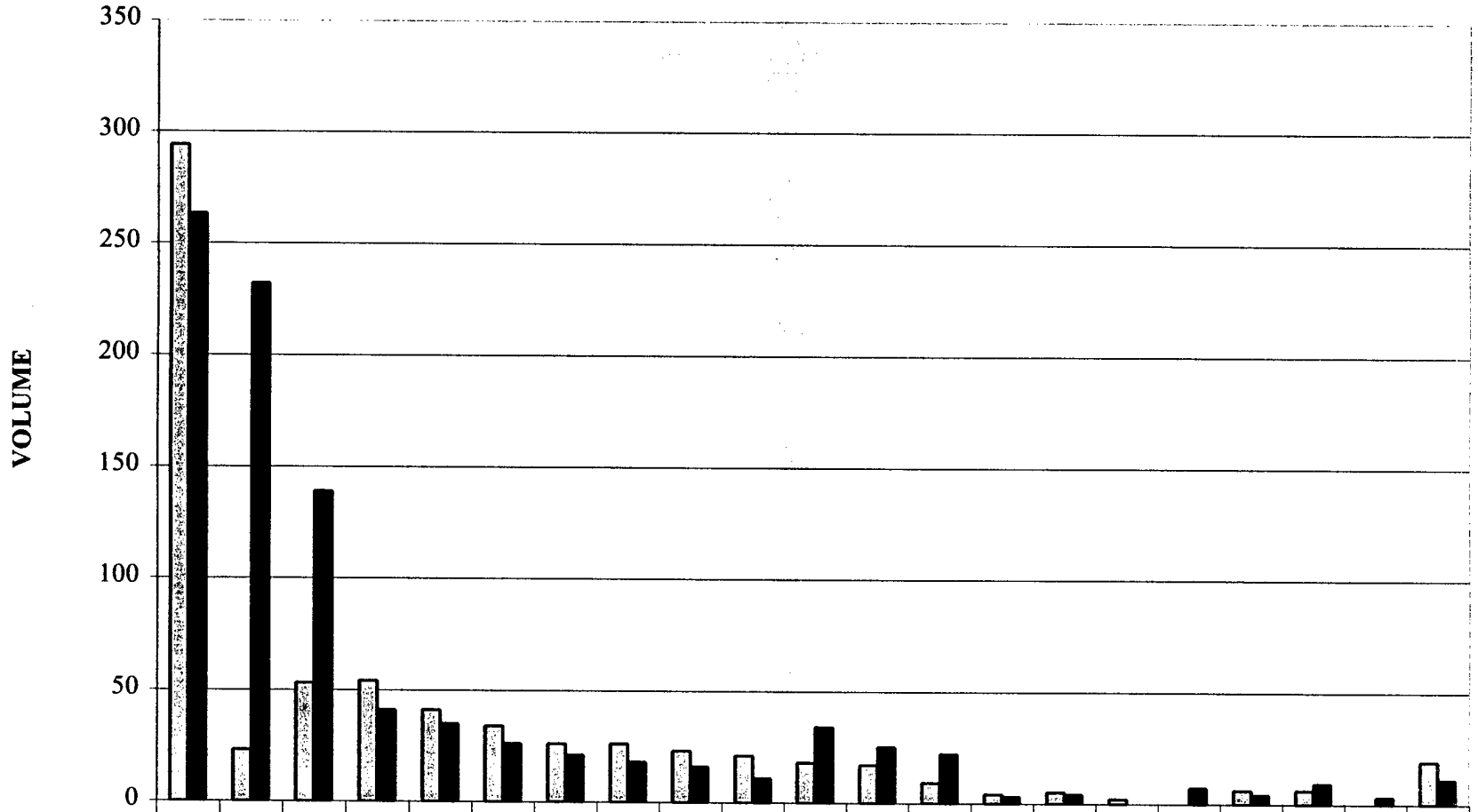
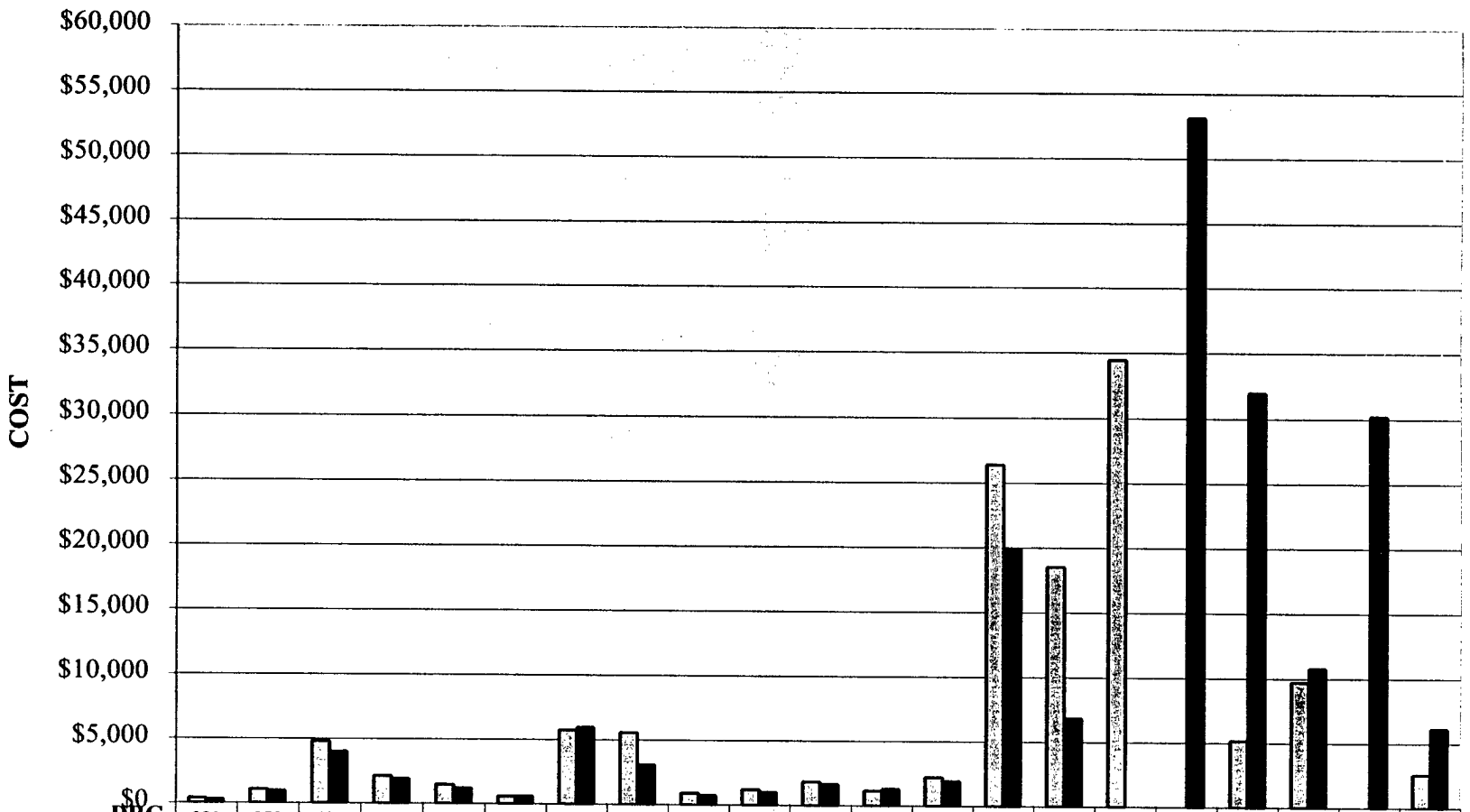


DRG	391	373	430	371	98	630	0	112	184	372	91	359	410	v5	431	601	483	468	475	108	426
FY95	294	23	53	54	41	34	26	26	23	21	18	17	9	4	5	2	0	6	6	0	19
FY96	263	232	139	41	35	26	21	18	16	11	34	25	22	3	4	0	7	4	9	3	11

Figure 1: Comparison of the top 10 DRGs by highest number of episodes for FY '95 and FY '96



DRG	391	373	430	371	98	630	0	112	184	372	91	359	410	v5	431	601	483	468	475	108	426
95	333.94	1059	4796.6	2120.8	1470.3	553.34	5722.2	5512.6	877.85	1208.7	1804.5	1146.3	2228.4	26344	18489	34425	0	5144.1	9703.4	0	2552.2
96	286.29	946.4	3961.6	1891.6	1189.3	594.56	5931.4	3053.9	722.69	967.39	1637.8	1300.6	1919.5	19894	6787.3	0	53097	31901	10724	30148	6110.6

Figure 2: Comparison of the top 10 DRGs by total Government cost for FY '95 and FY'96

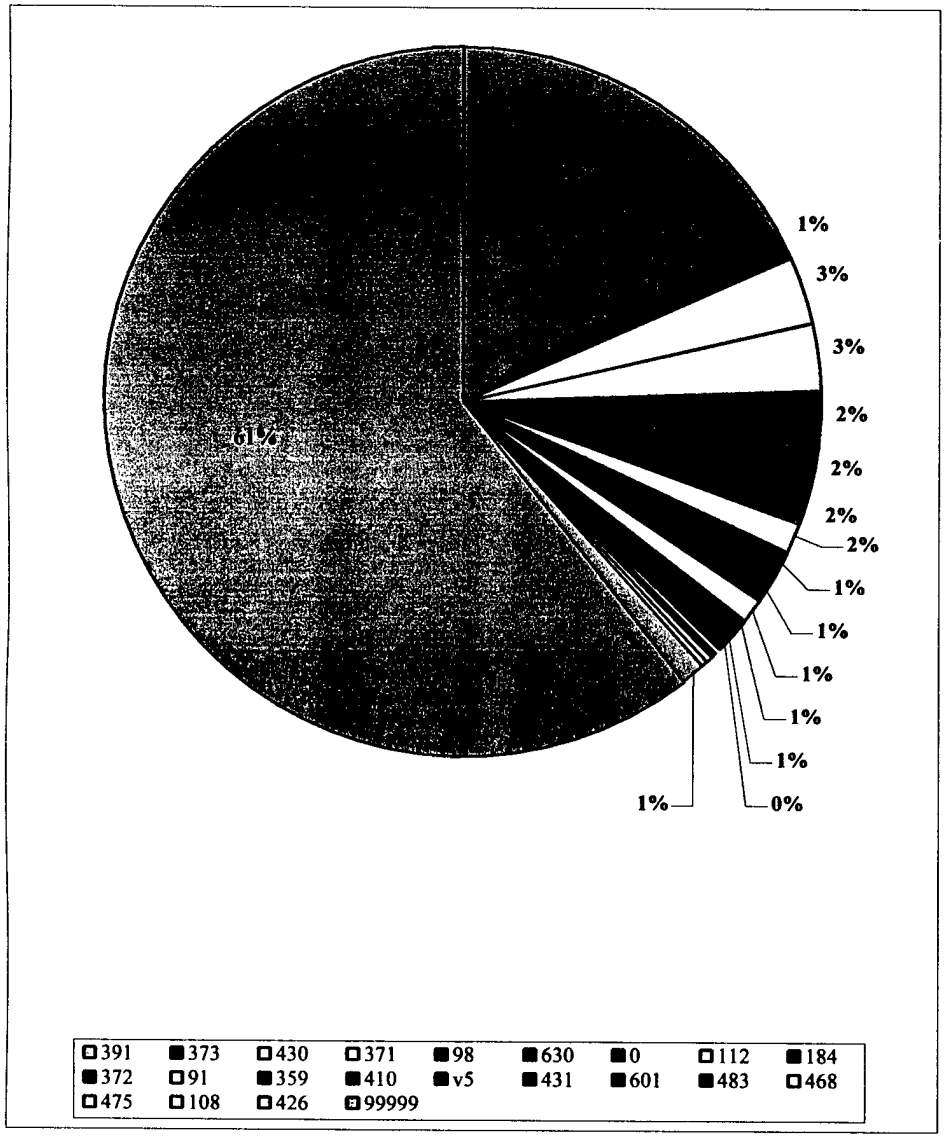


Figure 3: Percentage of total episodes broken out by DRG for FY'95

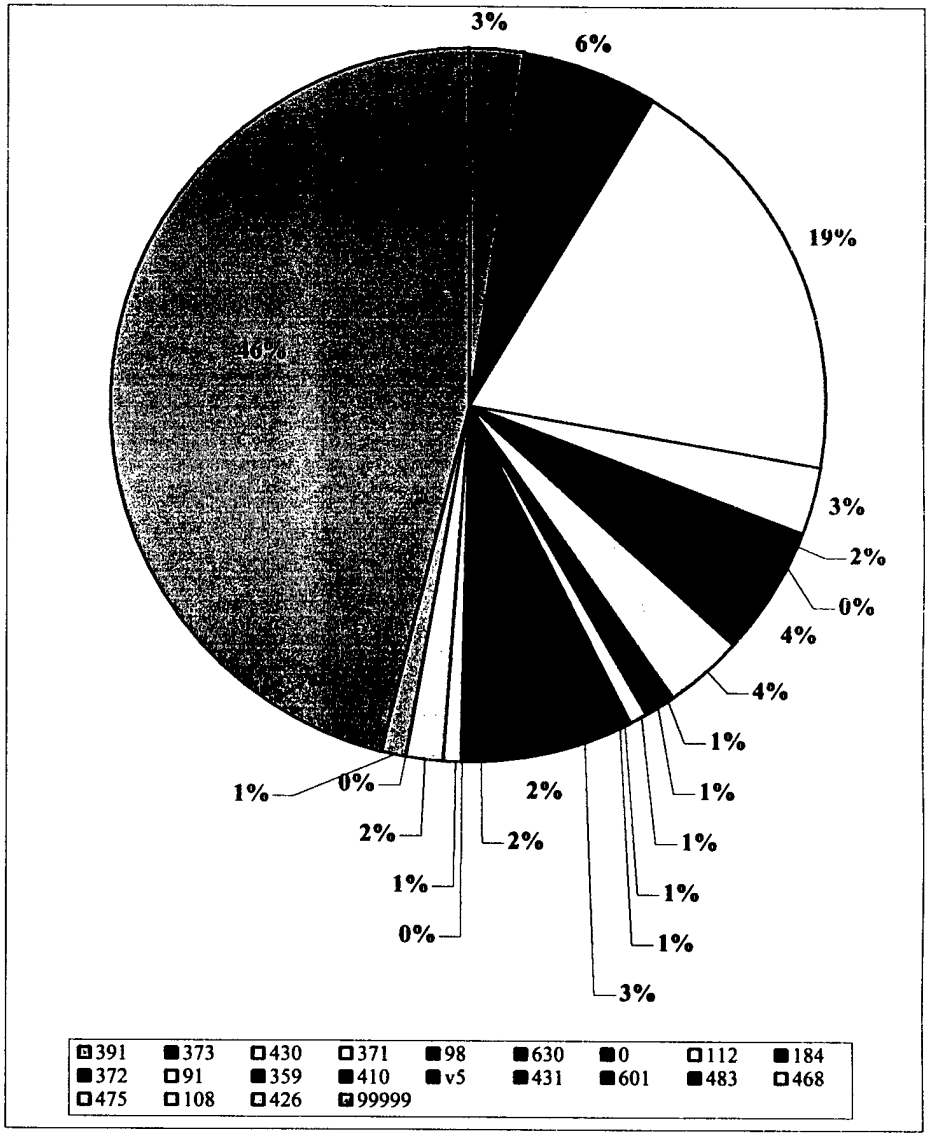


Figure 4: Percentage of total costs broken out by DRG for FY'95

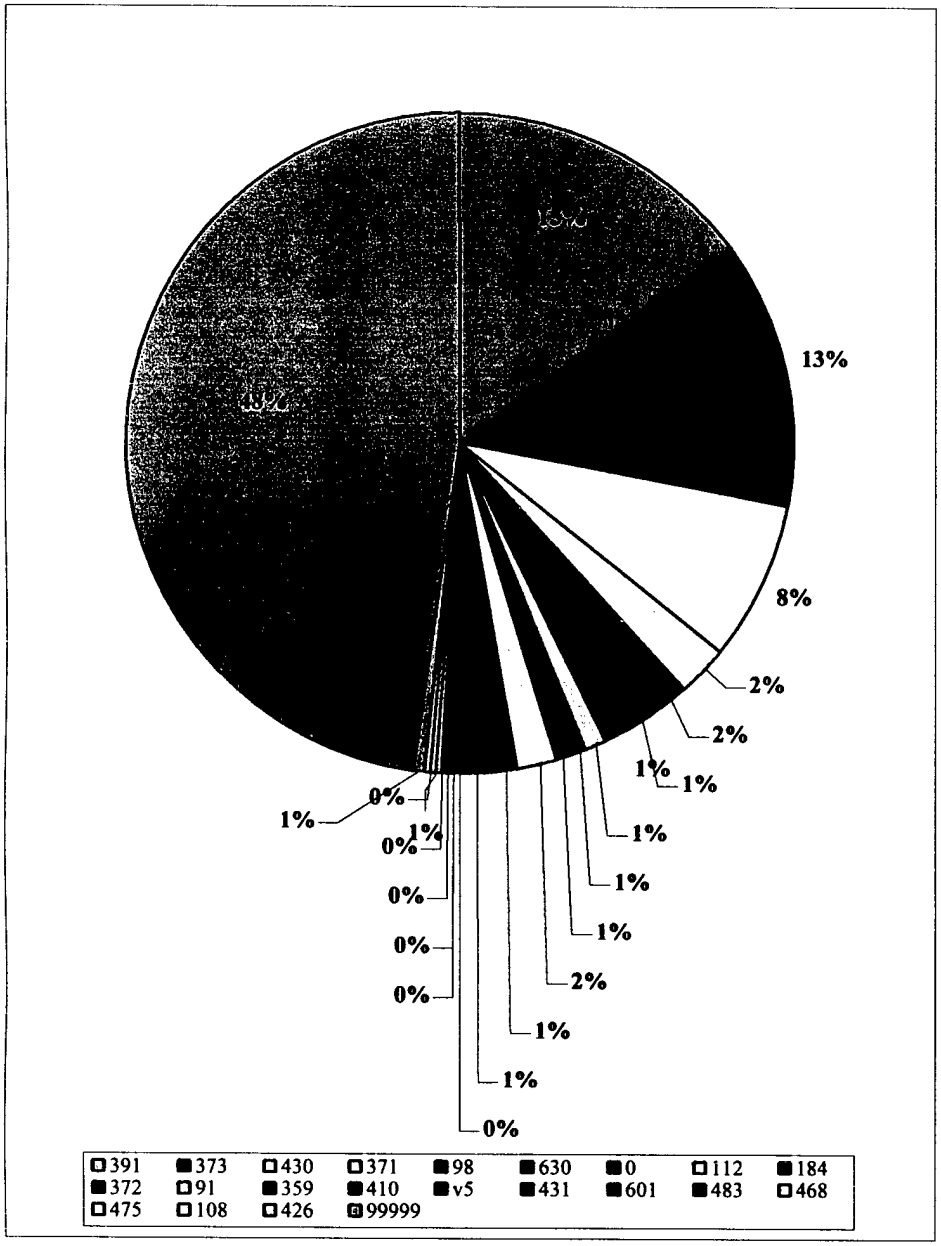


Figure 5: Percentage of total episodes broken out by DRG for FY'96

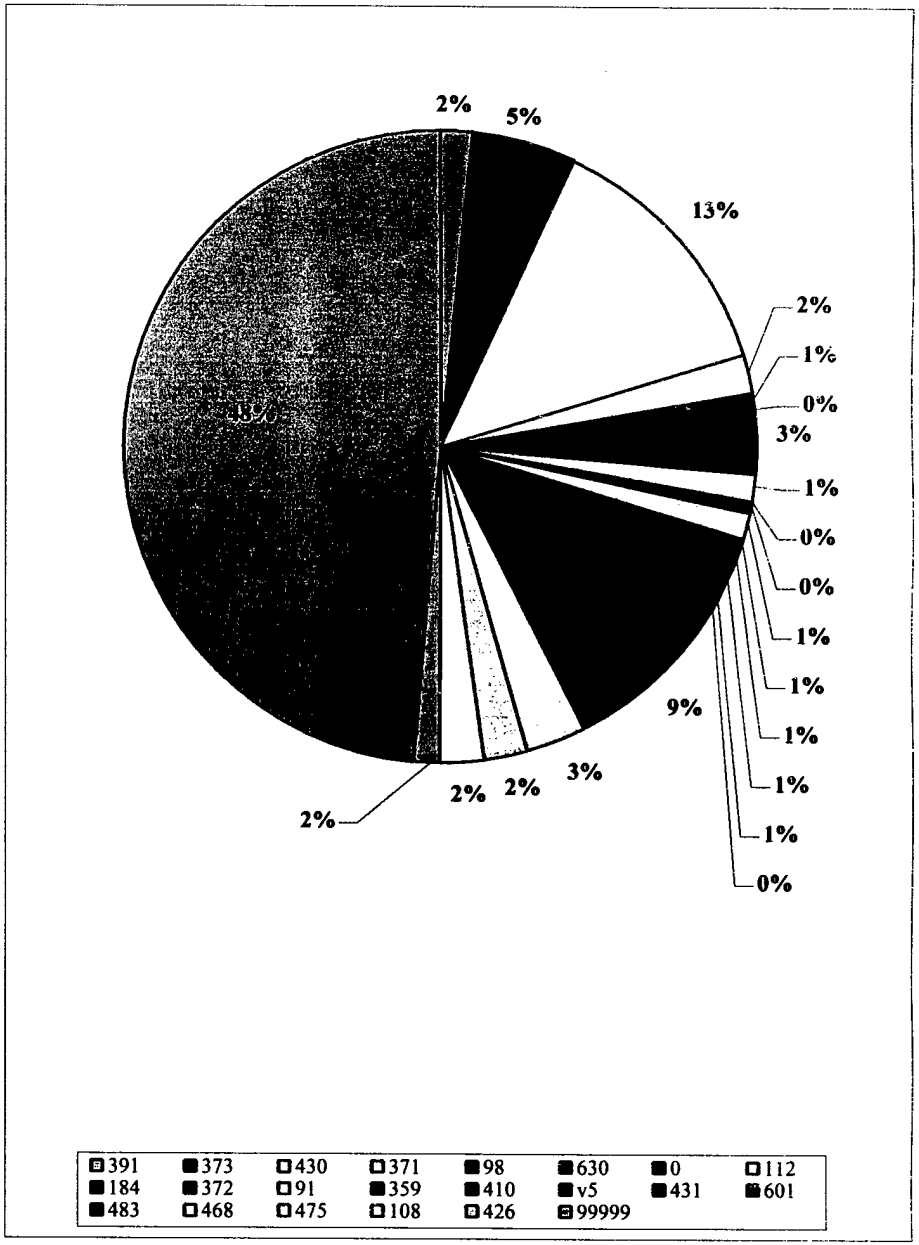


Figure 6: Percentage of total costs broken out by DRG for FY'96